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University of Wisconsin-Stout
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Foreword

What a difference a year makes! Recently, I went back to the unpublished Foreword to the 2020 edition of the *Journal of Student Research* to gauge my thinking back around February of 2020; here are a few pared-down observations from that Foreword:

"There is something a little interesting about reaching the year 2020 . . . there is a certain symmetry to it—a touch of punchy repetition: "twentytwenty."

That is true enough, but it also is hard to read those lines as innocently now as they were imagined then. For so many, "punchy repetition" came off a bit more like "repeated gut-punch." It was a year to be survived, not celebrated.

It is the next thought, though, that really got spun on its head a couple of weeks after it was drafted:

[An] arresting note about the current year is the way the phrase "20-20" evokes thoughts about vision. In common speech, 20/20 vision is regarded as 'perfect' vision. . . 20/20 strongly evokes the idea of being able to see clearly."

Whew—fair to say that very few of us "clearly" saw coming the seismic effect of the pandemic or the social, political, and educational turmoil that erupted during the year! But, thankfully, some of my words at the time still hold true, even after the massive 'teachable moment' that was 2020:

I'm more interested in the metaphorical than the clinical notion of 20/20 vision—to see clearly, not merely with the eyes, but with the mind . . . With 20/20 powers of observation, one may perceive what is, in contrast to what is thought to be. We seek to equip the rising generation with that sort of insight—that clarity of mind."

Because of the sudden shutdown of campus activities last spring, the 2020 *Journal of Student Research* was not published. This 2021 edition (which will retain the designation Volume 19), includes submissions and juried art collections that were ready for publication in March, 2020. To those are added more submissions and art received for the 2021 edition. The limitations COVID-19 placed on campus activities resulted in only a few new JSR submissions. But that does not mean our mission to explore and examine the world or our own humanity is diminished. Indeed, the upheavals and challenges we all encountered in the past year simply give us ever more aspects of life to consider, speculate about, and formulate research on.

The *Journal* wouldn't happen without the support of several people on campus, representing students, staff, and faculty. I would like to thank Stephen Eibes, Ashley Ramaker, and Jackie Miller, all of the Office of Research and Sponsored Programs (ORSP); cover artist Vientienne Vang; Charles Lume who arranged for the juried art selections included in the JSR; and Chad Nyseth and the Graphic Communications Practicum (both for spring 2020 and spring 2021), which is responsible for production. We had valuable help from Dr. Kate Edenborg's Advanced Editing and Dr. Joleen Hanson's Editing Processing and Practices classes. Special thanks to Dr. Elizabeth Buchanan, who left ORSP in summer 2020 for the field of health and wellness; her support and counsel were always valued and appreciated.

We are proud to present Volume XIX of the *Journal of Student Research*. Enjoy the view.

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Demographic Analysis of Bias and Privilege at a Small Midwestern University

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Abstract

This study explored how students responded to four scales related to bias and white privilege on a small, predominantly white, midwestern campus. Four research questions were examined: 1) which racial group has the most bias directed towards it 2) are there any gender differences in racial bias 3) do individuals have biases towards one or all racial groups 4) how do individuals respond to the white privilege scale? All questions were designed to examine how majority and minority groups responded to questions. Asians were found to receive the most racial bias. Males were found to hold more racial bias. Additionally, having one group-based bias was predictive of having a bias toward the other minority groups. Majority and minority responses to the white privilege scale will be discussed.

Keywords: bias, white privilege, campus climate

Demographic Analysis of Bias and Privilege at a Small Midwestern University

"If you don't feel you belong here your time will be almost wasted. You will not have the motivation or desire to do things because you feel you don't belong" (Campus Assessment Working Group, 2003, p. 4). There is a need for campus climate to be welcoming for all students. One factor that can influence one's perception of climate is the prevalence of discrimination, bias, and white privilege on a college campus. When a student perceives their campus's climate to be negative, students are more likely to leave their institution; negatively impacting retention efforts (Woodford & Kulik, 2014). Considering this, the purpose of the current study was to examine perceptions of a variety of racial/ethnic groups and white privilege at a predominantly white, small midwestern university. Specifically, rates of self-reported bias toward others, perceptions of privilege, and willingness to self-report on such topics were examined.

Race and Ethnicity

Race, ethnicity, and white privilege all have the potential to affect campus climate for the whole campus as well as for individuals. Sun (1995) defines race as the way we categorize humans by their biological features. It is important to note that the categories of race and the concept of race itself is socially and systemically constructed. The concept of ethnicity is similar to race, but they are two separate concepts that often get confused. Ethnicity is categorized by one's heritage and is

¹ Brandon is a McNair Scholar.

defined by the individual person. Snyder (2009) states ethnicity is linked to ancestry and kinship. Ethnicity is where an individual's culture, ideals, and traditions come from (Snyder, 2009).

Despite their differences both can result in bias and discrimination toward others. Snyder (2009) notes that certain European ethnic groups have more power and privilege than Asian, Black, or Latinx ethnic groups. This power difference can cause a sense of powerlessness in minorities and can make individuals feel like the target of prejudice (Snyder, 2009). These ingrained beliefs in our society are hard to get rid of and can cause individuals to think, speak, or feel ill towards races and ethnicities that are not their own. These same ill feelings can become part of the campus climate and can make minority individuals feel unsafe and possibly unable to acclimate.

Bias

Every person has the potential to experience or perpetrate bias, unintentionally or intentionally, towards another individual. The American Psychological Association (APA) (2018) defines bias as a "predisposition for or against something." Tatum (2017) gives an example by explaining that humans often consider two categories: "us" and "them." This categorization can lead to misunderstanding and divides between groups. Division and categorization of people have the potential to lead to feeling unwelcome and a reduced sense of belonging at college.

On average 20% of Black individuals and 15% of Latinx individuals endure bias on predominately white college campuses (Hurtado & Alvarado, 2015). These rates of students subjected to bias show the reality that many students of color face on predominately white campuses. Being subjected to race and ethnicity bias can produce difficulties for students in higher education (Cabera & Nora, 1996). Specifically, minority students have a harder time acclimating to social settings and succeeding in academics when prejudice (a negative attitude towards another individual (APA, 2020)) and discrimination (unfair treatment towards individuals based on identities they hold (APA, 2020)) are present (Cabera & Nora, 1996).

White Privilege

Kendall (2002) defines white privilege as systematic benefits white individuals receive because they resemble the dominant social group. When looking at predominately white institutions white privilege is often shown by the university officials displaying white language, dress, and culture as the standard at an institution (Lemaire, 2002). Additionally, because there is a white majority on campus, there is often a lack of awareness for people of color and their experiences. This can result in decision makers making decisions, intentionally or unintentionally, that create a less than inclusive environment for students, faculty, and staff of minority populations, resulting in minorities feeling disregarded on their campuses (Lemaire, 2002). In addition, white privilege may make minority individuals feel like their voices, opinions, and identities are valued less on their campus.

White privilege can also affect how an individual views oneself and the

people around them. If not recognized, this can cause white people to feel a sense of superiority over minority groups. Kendall (2002) states that if privilege is not acknowledged and accepted it can lead to the silencing of minorities, the belittling of people of color's worth, and the illusion that white people and their actions are the norm. It is important for white students to address white privilege and its effect on campus climate because if students do not address their privilege, they can make other students feel uncomfortable and potentially engage in racial bias.

In this study, four subcategories of white privilege were examined: willingness to confront white privilege, anticipated costs of white privilege (perceived social costs to individuals), awareness of white privilege, and white privilege remorse. These concepts are important to address because on predominately white campuses, white privilege is common and can appear in several places.

Campus Climate

Campus climate is a tool used to evaluate how students, faculty, and staff view interactions on their campus (Grand Valley State University, 2018) and how those interactions meet individual's standards in regard to how well they feel their potential and needs are respected (University of California, 2014). Campus climate surveys can be used to examine dialogue, encounters, and academic interactions with staff, faculty, administration, and students, which is important when assessing an individual's comfortability on campus.

Oaks (2017) states that when addressing campus climate, it is important to address psychological climate. Psychological climate differs from campus climate because it focuses on how an individual student sees campus climate, whereas campus climate looks at a multitude of peoples' feelings about the campus. Thus, it is important to address the psychological climate for those of minority groups may be vastly different from the average score.

Campus climate is also important because it can influence a student's success. Hurtado (2005) found that students with positive encounters with peers and positive attitudes of their campus environment tended to thrive in college. Specifically, they performed higher in areas of problem-solving, perspective taking, and they had increased interest in social issues at their university. On the other hand, students who see their institution's campus climate as negative and have experienced negative encounters with peers can experience negative impacts on their college experience. Individuals are at a greater risk of having lower grade point averages and lower graduation rates when they are exposed to racism on their campus (Brown et al., 2005).

Current Study

In the current study, self-reported perceptions of racial/ethnicity bias toward three minority groups and white privilege on a small college campus was collected. Five exploratory questions were examined related to perceptions of bias toward minority groups on campus:

- R1) Which minority group receives the greatest amount of bias on this campus?
- R2) Do gender differences in perceptions of bias exist on this campus?

- R3) Does having a bias toward one group, increase the likelihood of holding a bias toward multiple minority groups?
- R4) How does perceptions of bias relate to self-reports of white privilege?
- R5) On a predominantly white institution, how would participants respond, or neglect to respond to a white privilege survey?

Method

Participants

For this study, 128 individuals consented to participate, of those 121 completed the survey materials. Participants for this study were students from a predominately white (88.8%), midwestern campus. Participants ranged in age from 18 - 57 ($M = 21.33$). The gender of the participants was predominantly female (48.2%), followed by 36.5% male, 2.2% nonbinary participants, and 13.1% chose not to respond. A majority of the participants identified racially as white (84.4%). The rest of the participants had assorted racial and ethnic identities: 4.9% of participants were Black, 1.6% Native American, 1.6% Hmong American, 0.8% Pacific Islander, 2.5% Asian (not Hmong), 5.8% identified as Latinx, and an additional 5.8 % preferred not to respond. Of this sample, 3.3% identified as being biracial by selecting more than one of the previously listed categories.

Measures

The Modern Racism Scale. This survey is made up of six items designed to assess racial bias toward Black individuals using a six-point Likert scale from 1 = strongly disagree to 6 = strongly agree (Simeoni, 2005). An example item from this survey is, "Black Americans should not push themselves where they are not wanted" ($\alpha = 0.78$).

The Modern Ethnicity Bias Scale. This survey is made up of 12 items designed to assess ethnicity bias towards Hispanic individuals using a seven-point Likert scale from 1 = strongly disagree to 7 = strongly agree (Segrest et al., 2006). An example item from this survey is, "Hispanics are taking advantage of their minority status" ($\alpha = 0.90$).

The Anti-Asian American Prejudice Scale. This survey is made up of 25 items intended to assess an individuals' potential prejudice towards Asian populations using a six-point Likert scale from 1 = strongly disagree to 6 = strongly agree (Lin, 1999). An example item from this survey is, "Asian Americans enjoy a disproportionate amount of economic success" ($\alpha = 0.90$).

The White Privilege Attitudes Scale. This survey is made up of 28 items designed to assess attitudes towards white privilege using a seven-point Likert response scale from 1 = strongly disagree to 7 = not applicable (Pinterits et al., 2009). The survey is made up of four subcategories: willingness to confront privilege, anticipated social costs of addressing privilege, awareness of privilege, and remorse of privilege, alphas = 0.91, 0.85, 0.81, and 0.92, respectively.

Procedure

Participants were recruited via email and the campus participant pool. In the consent statement it was outlined that, "participants will be addressing some potentially sensitive topics regarding their personal feelings on race." Given the sensitive nature of the topic, it was decided that demographic questions should be asked first, following consent, in order to examine possible trends in attrition rates based on the types of questions being asked.

Participants were then asked to complete the three surveys relating to racial bias. The order of these surveys was randomized for participants. All participants were then asked to respond to the White Privilege Attitudes Scale. This scale was presented last as the researchers viewed this topic to potentially be the most challenging for participants to respond to, and most likely to result in participant attrition. Participants were then thanked for their time and received course credit for participating.

Results

The purpose of this study was to examine how students on a small midwestern campus responded to surveys regarding bias and privilege. In order to compare the levels of bias held between groups (RQ 1 & 2), a repeated-measures ANOVA was conducted (see Table 1). To create equivalent scoring systems between the scales, participants who selected the middle option for the Modern Ethnicity Bias Scale (neither agree nor disagree) were removed from the analysis. Using a repeated-measures ANOVA, significant mean differences in the participants' ratings of the three racial biases were found, $F(1,118) = 1385.34$, $p < .001$, $\eta^2 = 0.92$.

Post hoc analyses on the three racial biases were conducted using Tukey's LSD. Participants reported significantly more racial bias toward Asians relative

	<i>M</i>	<i>SD</i>
<u>Hispanic Bias</u>		
Overall	2.56	1.01
Male	2.93	1.06
Female	2.38	0.95
<u>Black Bias</u>		
Overall	2.24	0.91
Male	2.52	0.94
Female	2.04	0.83
<u>Asian Bias</u>		
Overall	2.95	0.66
Male	3.09	0.64
Female	2.87	0.63

Table 1: Means and Standard Deviations for Self-Reported Racial Bias.

to Blacks or Hispanics. Additionally, participants reported significantly more racial bias toward Hispanics than Blacks. A set of t-tests were also conducted to investigate possible gender differences in the amount of reported bias. Men reported significantly more bias than women did toward Hispanics, $t(116) = 2.94$, $p = .004$, $r^2 = .07$, and Blacks, $t(115) = 2.89$, $p = .005$, $r^2 = .07$. Additionally, men reported only marginally significant more bias toward Asians than did women, $t(116) = 1.89$, $p = .061$, $r^2 = .03$.

A set of Pearson Correlation tests was examined to determine if having bias toward one group was predictive of having biases toward other groups as well (RQ3). It was found that if an individual were higher in bias toward one minority group, they were also likely to report higher levels of bias toward the other two racial groups as well (see Table 2).

Examining the relationship between racial group bias and the factors of white privilege (RQ4), two key findings were noted (see Table 2). First, bias towards racial minorities was negatively correlated with a willingness to confront white privilege, acknowledgement of one's own white privilege, and feeling remorse for one's own white privilege. Second, the perceptions of there being a cost to addressing the issue of white privilege showed a significant positive correlation with bias towards Asians and Hispanics. This relationship was found to be marginally reflected as well when examined with bias towards black people.

Variable	1	2	3	4	5	6	7
1. Hispanic Bias	-						
2. Asian Bias	.58**	-					
3. Black Bias	.82**	.50**	-				
White Privilege							
4. Willingness to confront	-.61**	-.34**	-.52**	-			
5. Cost to Address	.22*	.22*	.17	.04	-		
6. Awareness of	-.69**	-.31**	-.68**	-.69**	-.04	-	
7. Remorse for	-.35**	-.12	-.34**	.57**	.11	.42**	-

Table 2: Correlations for the Bias Scales and Four Factors of White Privilege.

* Note. * $p < .05$, ** $p < .001$

In addition to examining the relationship between reported bias and perceptions of white privilege, the researchers also examined the frequency and types of responses (or lack thereof) for the white privilege scale. The percentage of responses, non-responses, and abstainer responses can be found in Table 3.

Discussion

When analyzing the results for bias on campus, it was found that, on average, responses to the survey were at the low end of the scale. This would suggest that the

	Disagree	Agree	Neither Agree nor Disagree	Not Applicable	No Response
Willingness to Confront Privilege					
I plan to work to change our unfair social structure that promotes white privilege.	16.67 (10.53)	52.94 (68.42)	21.57 (10.53)	2.94 (5.26)	5.88 (5.26)
I'm glad to explore my white privilege.	16.67 (15.79)	39.22 (26.32)	32.35 (21.05)	5.88 (21.05)	5.88 (10.53)
Anticipated Costs of Addressing White Privilege					
I am anxious about stirring up bad feelings by exposing the advantages that Whites have.	29.41 (57.48)	30.39 (21.05)	31.37 (10.53)	2.94 (5.26)	5.88 (5.26)
I am anxious about the personal work I must do within myself to eliminate white privilege.	42.16 (36.84)	20.59 (26.32)	30.39 (26.32)	0.98 (5.26)	5.88 (5.26)
White Privilege Awareness					
Everyone has equal opportunity, so this so-called White privilege is really White-bashing.*	45.10 (26.32)	40.20 (68.42)	7.84 (0.00)	0.98 (0.00)	5.88 (5.26)
Plenty of people are more privileged than Whites.*	48.04 (31.58)	30.39 (52.63)	13.73 (10.53)	1.96 (0.00)	5.88 (5.26)
White Privilege Remorse					
I am ashamed of my White privilege.	35.29 (26.32)	23.53 (21.05)	31.37 (26.32)	3.92 (21.05)	5.88 (5.26)
I am angry that I keep benefitting from White privilege.	39.22 (15.79)	23.53 (26.32)	27.45 (31.58)	3.92 (21.05)	5.88 (5.26)

Table 3: Percentage of White Student and (Minority Student) Responses to the White Privilege Scale.

*Note: For the white sample $n = 102$. For the minority sample $n = 19$. There were 7 responses

* = Reverse coded items. This table is a condensed version of the results.

level of individual perceptions of bias held by individuals on campus is relatively low. Regarding the question of which racial group has the most bias directed towards it, Asian bias was found to be the most prevalent among students in the study. A reason for Asian bias being most prevalent among students may be because Asian students are highly regarded as model minorities and praised for their high-ranking academic skills (McGee, Thakore, & LaBlance, 2017). These stereotypes of Asian individuals having superior academic skills are embedded in American culture and may cause people to have ill feelings or bias towards Asian populations, particularly within academic settings.

This institution's results also showed that men, on average, reported higher levels of bias toward other racial groups than women did. Even though both groups displayed racial bias, on average, men had significantly higher amounts of Hispanic, Black, and Asian bias compared to women. This finding, in part, mirrors the findings found by Assari (2018) which showed that white men, relative to white women were more likely to have bias towards black people.

Additionally, it was found that reporting biased beliefs/attitudes about one minority group was positively correlated with reporting biases towards the other two minority groups as well. It is not known if reducing bias toward one group would also result in reductions of bias toward others, however, more general trainings about inclusivity and empathy toward others broadly may be an effective way to reduce

these biases.

White Privilege

The second focus of this study was to examine how participants would react to questions regarding issues of bias and white privilege. This was examined in two ways: 1) willingness to respond, and 2) strength of their reported attitudes. When examining participants' willingness to respond the first item that needs to be highlighted is that participating in this research project was an optional activity for students. There is no way to know how many students viewed the invitation to participate and opted not to participate and what their motives for not participating might have been. Nevertheless, a few interesting findings emerged from the data collected. To start with, five individuals chose to look at the consent form, but opted not to complete the study (their motives for opting out are unknown and these individuals are not included in the sample size). Similarly, four individuals consented to participate but declined to answer any items on the survey after giving consent. Additionally, three more answered the demographic questions but declined to answer any items related to bias or privilege. Of these three, all identified as white. An additional six individuals, who identified as white, declined to respond to the White Privilege scale items. In addition to choosing not to respond, there were many white participants that chose responses that allowed them to dodge the question such as "*neither agree nor disagree*" (NAND) or "*not applicable*" (NA). For the NAND option 13% - 32% of white students choose this response for the various white privilege items. Additionally, 1%-10% of white participants selected NA on the white privilege items. This result is especially intriguing considering the "*not applicable*" option was intended for minority individuals who may not feel that the questions would relate to them. The choice to select either NAND or NA or by not responding at all could potentially be explained by white individuals feeling uneasiness when discussing white privilege, also known as white fragility. White fragility is when white individuals are unable to tolerate racial stress, such as examining one's own whiteness, which can cause white individuals to engage in defensive actions (DiAngelo, 2011). Boatright-Horowitz and Soeung (2009) state that white people tend to deny the ideas of white privilege and can even consider white privilege conversations as attacks on their character, which may have been reflected in the NAND and NA responses.

Another interesting trend shown was the number of minority individuals who decided to answer white privilege items. Overall, when looking at the results minority individuals were more likely to respond to the white privilege items, and on a majority of items they were more likely to respond with agreeing or disagreeing answers instead of the other options. Even though minority individuals do not have white privilege, they chose to answer more frequently, and sometimes less neutrally than white students did. From the data that is collected we cannot determine why minority individuals scored this way. However, it is speculated that because they are minorities, they understand the dynamics of bias, privilege, and their impact on people. Perhaps minorities are more likely to be aware and remorseful about any privilege they have whether that be socioeconomic, able bodied, or gender privilege. This awareness of their privilege could have caused them to confuse their own

privileges with 'white privilege.' It also is possible that because they are minorities, they may just be more willing to be sorry about the existence of white privilege, not because they have it, but because it affects them systematically. Furthermore, minority individuals who are perceived to be white passing or have lighter skin may have thought more critically about their own white privilege, which may have affected the overall responses of minority individuals in this survey.

Limitations and Future Directions

There were many limitations of this study. Self-selection was the first major limitation that could have influenced the results of this study. As stated previously, averaged responses to the minority bias surveys were at the low end of the scale, suggesting that there was less bias held by individuals on campus. While these lower reports of bias seem positive, given the small sample size and the self-selection/reported nature of this study, it is unrealistic to believe that the level of bias and subsequent discrimination that occurs would be as low. Students may have responded differently than their normal behavior in hopes to 'look better' on the survey. To attempt to understand who would be willing to participate in such a study (or not), demographics were assessed first. This allowed the researchers to identify a few attributes of participants before they quit the survey. However, this design decision may also have made participants more wary of the types of responses they selected for the subsequent measures of bias and white privilege than if the demographics had been assessed at the end, as commonly done in research.

Another limitation of this study was that the white privilege scale differed from the original study. In the original study, the white privilege scale ranged from *strongly disagree* to *strongly agree* and did not have a *NAND* option. While this neutral option was not part of the original scale, the researchers were interested to see what percentage of students would take advantage of an opportunity to not express an emotional response to the white privilege items. In addition to the neutral option, due to a clerical error, there were only two agree options, instead of three agree options reflected in other 6-point Likert scales. This left participants with a disproportionate disagree to agree ratio (3:2) which might influence participant responses. Despite these alterations, the scale still maintained a high level of reliability, consistent with previous research.

For future studies, it would be beneficial to add qualitative and quantitative campus climate assessment questions to get a better understanding of how perceptions of bias and privilege relate to the perceptions of campus climate. Even though it has been outlined that campus climate has the potential to be affected by bias and privilege (Lemaire, 2002), it cannot be confirmed in the current study whether campus climate at this institution has been altered because of the privilege and bias displayed. However, it is possible to compare the results of the campus climate survey at this institution, with the results of the study. When analyzing the results of the most recent campus climate survey on this campus, underrepresented minority students expressed feeling lower senses of belonging and reduced perceptions of climate compared to their white peers (Greene, 2017). Furthermore, of those who participated, 31% of underrepresented minorities reported experiencing harassing behavior relative to only 12.9% of whites. This would suggest that despite

campus efforts to improve the climate, additional work regarding bias is needed.

In addition to tracking qualitative and quantitative campus climate assessments, longitudinal tracking would be beneficial for identifying shifts over time. Considering this, a long-term benefit of understanding the types of bias and beliefs about white privilege on a campus would be to help determine if campus efforts to reduce bias and privilege through trainings, courses, or other activities are effective at reducing bias and increasing awareness of white privilege. At the institution examined there are currently many efforts being implemented to reduce bias and create awareness and understanding of privilege on campus: hosting trainings, implementing equitable resources, providing safe spaces for marginalized populations, and giving people resources to help reduce their own prejudices. While such initiatives are well intended, it would be useful to track which efforts are most effective and warrant additional time/resources devoted to them in the future or on other campuses. Such data showing improvements of the overall campus climate, psychological climate for minorities, retention of students and staff, and increases in student satisfaction and performance would likely serve to encourage other campuses to be more intentional and willing to invest in such efforts as well.

Conclusion

The purpose of the current study was to serve as a pilot study to analyze responses to white privilege and racial bias affecting a small, predominantly white, midwestern institution. This information provides more clarity of what biases exist on campus and how students will respond when asked about such topics. The next step is to assess campus climate and how it is affected by initiatives on campus. If this institution could get significant results showing that efforts are reducing bias and privilege and improving campus climate, other institutions could utilize our findings. This could cause a chain reaction of positive change nationwide that would hopefully leave minority students feeling more welcome on their campuses so that they can reach their full potential. Minority students deserve to experience equal opportunities that their white counterparts have in higher education, this research could help pave the way for that.

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Do Children Conform? Conformity Behaviors in Children Aged Two Through Five

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Abstract

Prior research suggests that conformity begins during childhood, but conformity behaviors may differ as a function of age and other demographic characteristics of the child (e.g., gender). The current study was designed to investigate whether conformity behaviors occur with toddlers and children in early childhood. Data was collected from 32 participants from two daycare locations in the Midwestern U.S. Each child was placed in a group with three of their peers and given an image set of different sized dogs. However, one child in the group received images that differed from the others in their group. Participants were asked to indicate which of their images matched a sample image. Results from this study suggest that toddlers and children in early childhood do not experience strong pressures to conform to the group norm, as none of the children in the current study modified their responses to align with others in their group. The lack of findings from the current study contradicts prior studies, which suggested that conformity does exist in early childhood. The current study suggests that conformity behaviors may evolve over time and conformity may be less likely with younger children.

Keywords: conformity, early childhood, education, social behavior

Do Children Conform? Conformity Behaviors in Children Aged Two Through Five

Conformity is a powerful driving force that is found across cultures (e.g., Sistrunk, Clement, & Guenther, 1971; Jiang, Bong, & Kim, 2015). Conformity occurs when one's behavior or attitude becomes consistent with the attitudes or behaviors of their surrounding group, whether these consistencies occur under real or imaginary pressures from the group (Zhang, Zhang, Mu, & Liu, 2017). Historically, some have even argued that human survival results from an individual's ability to conform in a way that supports the group or society (Schillaci & Kelemen, 2014). In contemporary society, conformity is often utilized by humans to make their social behaviors more convenient and effective, while also ensuring that they meet the expectations of others within their society or culture (Over & Carpenter, 2011). For example, in middle- and upper-class families in the U.S., a person may conform to the group norm and societal pressure. This individual would be labeled as a fully functioning adult after completing a degree, getting a job, and paying their bills.

As one of the original examples of conformity and as a leader in the conversation surrounding conformity during adulthood, the Asch (1956) study

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assessed conformity among adults. Nine individuals were asked to participate in what they believed to be an experiment on visual discrimination. In a group setting, the participants were all shown multiple lines of varying lengths on a board. They were asked to match the length of one line with one of the other lines shown. However, eight of the group members were confederates and instructed to provide an incorrect answer to the line matching question. Results from this original study illustrated how participants were more likely to knowingly choose an incorrect answer when their group members gave incorrect answers (Asch, 1956). Researchers concluded that adults feel a powerful pressure to conform in group-based settings.

Most studies have explored conformity within adult populations (Asch, 1956; Stallen et al., 2012; Wang et al., 2014). There are also many studies that suggest conformity appears earlier in the lifespan, such as during childhood and adolescence (Hamm & Hoving, 1969; Haun & Tomasello 2011; Over & Carpenter, 2011; Stein, 2016; Zhang et al., 2017). For instance, Over and Carpenter (2011) discuss how social pressures can be found in early childhood, where children aged five may use conformity to fit into the group norm. Interestingly, conformity and the pressures associated with it can be felt by an individual even in the absence of observable conformity pressures from one's peers (Over & Carpenter, 2011). Zhang and colleagues (2017) suggest that conformity pressures may appear as early as age three, and these societal pressures can often increase as one ages into middle childhood, adolescence, and then adulthood. There has been limited recent literature on conformity during early childhood, and the researchers of this study seek to add to the literature.

Conformity During Early Childhood

The age at which a child begins to display conformity has been debated in research studies that explore social behaviors across the lifespan. Some researchers suggest that conformity is innate in humans upon birth (Stein, 2016), while others claim that conformity appears around age three (Flynn, Turner, & Giraldeau, 2018; Haun & Tomasello, 2011; Schillaci & Kelemen, 2014; Zhang et al., 2017). Some of this confusion surrounding conformity and its developmental trajectory during childhood might result from difficulties in measuring this phenomenon. For example, many conformity studies modify data collection methods that were originally intended for adults to make them more age-appropriate for children in early and middle childhood. Not having a conformity measure created for this age group neglects the immense differences in social behaviors and interactions between adults and children. If conformity is a multifaceted phenomenon, these instrument adaptations may result in measurements of varied aspects or types of conformity. In addition, conformity likely varies as a result of cultural and social context, and consequently, subtle differences in cultural and social contexts may result in varied conclusions about where and when conformity occurs. It is also likely that conformity occurs because of many social factors including the persons physical demeanor, language used, and tone used. If it were true that conformity is indeed multifaced, then this would support the idea that conformity involves several interactions between traits.

For example, in Flynn, Turner, and Giraldeau's (2018) study, they asked 168

children between the ages of three and five to watch an adult choose a box with an underwhelming prize inside it. The children were then asked to choose a box with a prize that they wanted to keep for themselves. The researchers were assessing whether the children would conform and choose the same box that the adult did or whether the children would choose a second box and receive a different prize. The younger, three-year-old children selected the same box as the adult more often than the five-year-old children. This suggests that conformity might be more likely to occur at the end of toddlerhood, or beginning of early childhood, when compared with later stages of early childhood. Further validating these conclusions, Schillaci and Kelemen (2014) found that three-year-old children were more likely to conform than four-year-old children. This is likely due to the maturation of the child's cognitive process and also because of their social development.

Researchers have investigated whether the age of the majority of group members might impact whether a child conforms. In one study, researchers recruited 120 children between the ages of four and a half and six and a half to view tasks that were being completed by a majority group of children who were either younger, older, or the same age as the participant. The majority group contained four members. Regardless of the age group of the majority children, each member of the majority was asked to complete a series of tasks in an ineffective way. Consequently, the target child (participant) would watch another group of children ineffectively complete a series of tasks. The researchers then assessed whether the target participant would copy the ineffective actions of the majority children, or if the target participants would come up with their own solution to the tasks. They found that the target participant was more likely to copy the majority group members when the majority group was older or the same age as the participant. The participants were less likely to copy the majority group members when the majority was younger than the participant (McGuigan & Burgess, 2017). Therefore, the age and other demographics of the majority group members may impact whether a child conforms to the social behavior of the majority.

Conformity Beyond Early Childhood

Conformity has also been explored in older children and adults to determine whether individuals of varying ages might differently experience social pressures to conform to the larger group. Researchers Hamm and Hoving (1969) modified the autokinetic judgment effect, a research method typically used on adults (see Sherif's 1937 study), to study conformity in children. Their study included 216 children aged seven, ten, and thirteen. Children were incorrectly told that a light on a projected screen was moving, when it actually was not moving. When alone, all the child participants reported seeing the light move around two inches. However, when the children were placed into larger groups of three children who were their same age and gender, the participants instead indicated that the light had moved further than two inches. Furthermore, the seven-year-old children were less likely to conform than the 10 and 13-year-old children. As a whole, these prior studies suggest that conformity pressure may not be consistent across early and middle childhood. Instead, the societal pull to conform may begin during toddlerhood, lie dormant during the beginning of middle childhood (around ages 6-8), and then awaken

during pre-teen years (ages 10 and older). Other studies highlight how conformity pressures might increase as children move into pre-teen years.

Zhang and colleagues (2017) studied 295 students aged 9 to 15. The researchers placed each individual participant in a room with a computer. Participants were asked to select which picture matched in size with the other pictures shown to the child. The children were told that they were in a group of four, but that each child was in a room with their own computers. Each participant was asked to identify if two images were the same size and, at the same time, the decisions from the other student group members were provided at the bottom of the computer screen. After witnessing what their group members had selected, the participants were given the opportunity to change their answers. As an added element, participants were assigned to one of two conditions: 1) the participant was told that their answer was going to remain confidential from their group, or 2) the participant was told that their answer was going to be made public to the group. The researchers found that older children, compared with younger children, display more conformity, but only if the children had to make their decision public. These findings highlight how decisions to conform, at least with older children and pre-teen children, may be impacted by a fear of shame for providing the incorrect answer or other repercussions from one's society that results from going against the group norm.

Taken together, the prior literature illustrates how the pressure to conform may vary across different stages of development, e.g., early childhood. The previous literature also demonstrates the complexity of conformity. Not only are people conforming to their peers, based on their social and cultural situation, but the strength of conformity can differ. Further complicating the phenomenon of conformity, other studies suggest that personal demographics, such as gender, might also impact conformity during childhood.

Gender Differences in Conformity

Prior studies find that females are more likely to conform than males (Costanzo & Shaw, 1966; Hamm & Hoving, 1969; Iscoe & Williams, 1963). For example, Iscoe and Williams (1963) found that female children under age 12 conformed significantly more often than male children when placed in groups of three. In addition, Hamm and Hoving, (1969) found similar results with their sample of 7, 10, and 13-year-old children. When placed in groups of three, the females in the study were significantly more likely to conform than males of the same age. A more recent study conducted by Haun and Tomasello (2011) extended these prior findings to a younger participant group. In their experiment, the researchers recruited 96 children, age four, and put them in groups of four. In their group, participants were given a book of images and asked to point (silent) or speak (verbal) to the tiger that was the same size as the one on the other side of the book. The results suggested that female preschool-aged children were significantly more likely to conform than males.

Similar results were also present in a study by Zhang and colleagues (2017). The researchers used similar data collection methods and a similar design to that used by Haun and Tomasello (2011), but they instead recruited participants ages 9 to 15. The researchers asked participants to determine if the pair of pictures shown on

the left side of the screen were all the same size. While making their decisions, the answers from the other three students appeared on the right side of the screen. They also found female participants conformed significantly more than males. Overall, this prior literature suggests that female children are more likely to conform than male children of the same age. Consequently, both the age of the participant and their gender may impact whether they are likely to conform in group-based environments.

Current Study

The following research questions guided the current study:

1. At what age during toddlerhood and early childhood do children begin to show signs of conformity?

Hypothesis 1A: The author hypothesized that the two- and three-year-old children would be more likely to conform to their peers than the four- and five-year-old children. Prior literature finds that toddlers have shown conformity at higher levels than those in early childhood (Schillaci & Kelemen, 2014; Flynn, Turner, & Giraldeau, 2018).

2. Does conformity during toddlerhood and early childhood differ based on gender?

Hypothesis 2A: Based on the prior literature finding gender differences in conformity (Costanzo & Shaw, 1966; Hamm & Hoving, 1969; Iscoe & Williams, 1963; Haun & Tomasello, 2011; Zhang et al., 2017), it was hypothesized that there would be a significant difference based on gender, where the female participants would conform more often than the male participants.

The current study was a close replication of Haun and Tomasello's (2011) study, but with fewer participants, a wider age range, and slightly modified procedures. The 2011 study contained four-year-old children in groups of four, sitting in a booth with dividers between one another. The groups were mixed gender and there was a target child that had a different book given to them than the other three participants. Their original study aimed to determine if the target child would conform to the other children's answers or answer in response to their own book. The current study also included children beyond the age of four.

Method

Participants

There was a total of 32 participants in this study, with eight groups of four participants for each age bracket. The researcher contacted the daycare center where I was invited to come to their classrooms and conduct the experiment. Parental consent was obtained from participants prior to data collection and participants were told that they could end the study at any point. Participants ages ranged from two through five, with most children participating in groups with those of the same age as them (see Figure 1).

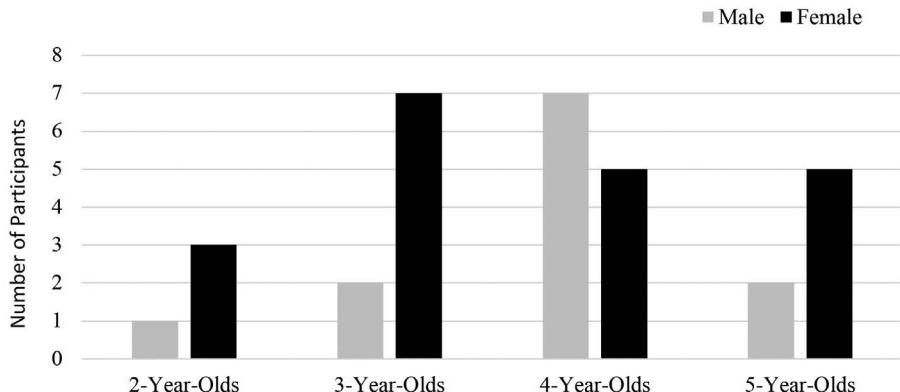


Figure 1: Age and sex of participants.

Participants were sampled from two daycare centers located on a university campus. All participants spoke English as a first language and were currently living in the Midwestern region of the U.S. Children in each participant group attended the same daycare/preschool center, and the children knew each other from their prior daycare experiences.

Materials

A set of pictures were created to be used with the two- to five-year-old children (see Figure 2). This set of pictures contained three images of a dog of different sizes, then on the adjacent page, there was a copied photo of one of the dogs.

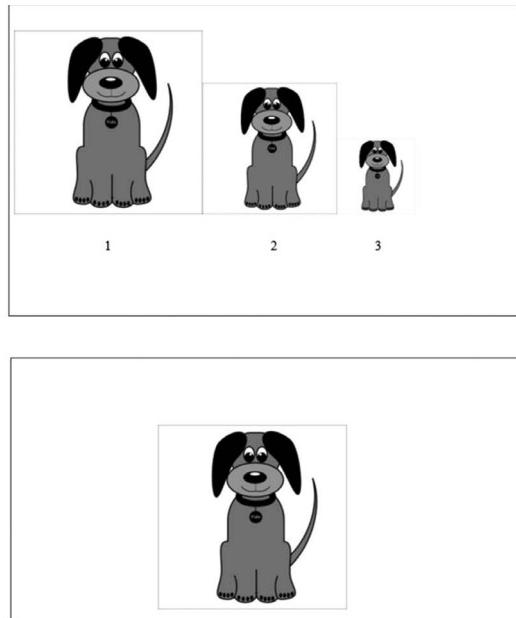


Figure 2: Dog pictures used to assess conformity.

Procedure

Data was gathered in the children's daycare center to maintain a familiar environment. The participants were brought to either a gathering room of the building or to a table outside of their classroom where they would typically have a snack. This location differed based on which center the children attended. The children were then told to sit in a chair and asked to play a game. The researcher gave instructions to the children on how to play the game and asked the children if they had any questions before beginning the game. Each group of participants contained four children, and each child participated in both Phase I and II of the study. Four children sat in a row with dividers between them so they could not see

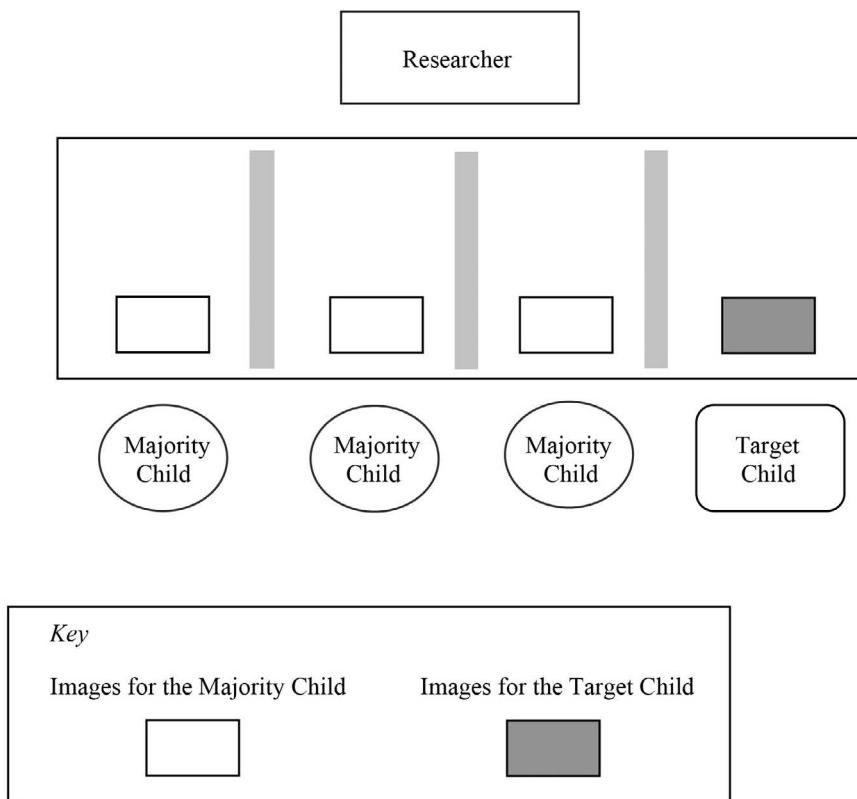


Figure 3: Procedure Set-Up Illustrating the Table with Four Participants.

what other children were viewing in their group (see Figure 3).

In Phase I of the current study, each child was given an image set of different size dogs. The image set contained two pages, with one page containing three dogs of varying sizes and the other page contained one dog that matched the size of a dog on the adjacent page. Participants were asked to match the images on the pages silently. To do this the participants were asked to point silently to the dog they believed best matched the other image.

Children were also randomly divided into two conditions: The *majority* child condition and the *target* child condition. The first three participants were labeled as the majority participants and were given the same set of pictures as one another, whereas the target child was the last child in the group. The target child received a set of pictures that were slightly different from the other three. For example, while the majority children had a picture with a small dog, the target child had a picture of a large dog. The participants were then asked to indicate which picture from the first image set matched the picture on the second page.

All four children in each group completed the first three rounds of matching with the same set of images to serve as a control or baseline level of data for the study. There were three trials of the child sitting and silently pointing to the image of the dog that matched the dog on the second page. For each trial of the silent pointing, the child received a new image set.

In Phase II, the children received a new set of images and sat in a row facing the researcher with dividers between each child. Instead of silently pointing to the matching image, the children were asked to verbally state the size of dog that matched best. The majority children had identical image sets, while the target child had a different image set. The children then went down the line and verbally stated which dog matched (small, medium, or big). There were three spoken trials for each group with different image sets in each trial. For each group, the image sets for every trial remained on the same rotation.

After the study was completed, each child was debriefed about the true intentions of the study, which was to test their level of conformity relative to their peers. Each child was then given a sticker as a reward for their participation in the study. All children received a sticker, regardless of whether they completed the study or not.

Results

All of the children participated in each round of the matching game. However, out of the eight trials conducted, none of the participants ($n = 0$ out of 32) displayed conformity as measured by the matching task, regardless of their age or gender. Consequently, additional analyses were not conducted to assess whether conformity might differ based on the child's age or gender.

However, it should be noted that there was one occurrence of a two-year-old female child conforming to the group, but the conformity displayed by the child did not fit under the definition of conformity that was set up in the introduction and methodology of the current study. One of the majority children peeked at the target child's photo before giving their answer, and although their image was different from the target, the participant gave the target child's image as their answer. As an example of what occurred, Jon Doe looked at Jane Doe's picture prior to speaking. Jane Doe had the large image of the dog, while Jon Doe had the medium image of the dog. The researcher asked Jon Doe what size they believed the dog in front of them was, and Jon Doe said large, even though he really had an image of a medium dog. Since this *peeking conformity* occurred only once and did not align with the researcher's definition of conformity for the current study, the researcher was unable to suggest that conformity occurred. In addition, there was another group that was ended early

after a child asked to be removed from the study due to being unable to focus and sit long enough to complete the study.

Discussion

The current study did not find conformity among children between the ages of two and five. These results did not support any of the original hypotheses, which contradicts prior studies suggesting that toddlers display greater conformity than those in early childhood (Costanzo & Shaw, 1966; Flynn, Turner, & Giraldeau, 2018; Hamm & Hoving, 1969; Haun & Tomasello, 2011; Iscoe & Williams, 1963; Schillaci & Kelemen, 2014; Zhang et al., 2017). In addition, because conformity behaviors were not shown, conformity did not differ based on gender. This contradicts previous literature, which suggested that female participants conform more often than male participants (Costanzo & Shaw, 1966; Hamm & Hoving, 1969; Iscoe & Williams, 1963; Haun & Tomasello, 2011; Zhang et al., 2017). The lack of conformity found in the current study might result from one of two circumstances: differences in the data collection methods used in the current and prior studies, and a deficit in participant motivation to engage with the matching game.

Methodological Differences Between Studies

One major difference between the current study and Haun and Tomasello's (2011) study is the number of participants in each. The 2011 study included 96 participants, whereas the current study included 32 participants. The collection of data from more participants would have been beneficial to the current study because conformity might exist as a rarer phenomenon amongst contemporary toddlers and children in early childhood. Another difference in methods between the two studies is that the original study contained a total of 30 trials which is significantly more than the 6 trials completed in the current study. The researcher of the current study was unable to conduct as many trials due to time conflicts as well as attention span difficulties amongst the children. The ability to conduct additional trials (beyond those conducted in the current study) may have influenced the outcome of Haun and Tomasello's study because it allows more opportunities for conformity to occur amongst the children. However, although the current study included fewer trials to test for conformity, the fact that conformity did not occur was also interesting and this finding could contribute to psychologists' understanding of conformity, or the lack thereof, across the lifespan.

Haun and Tomasello (2011) used significantly more trials compared to the current researcher. Among these extra trials were "no-conflict trials". This means that all children had the same size tiger in their picture, including the target child. The difference between the two studies is that the original study contained four different conditions while the current study only contained two conditions. Having a condition in the middle where all children spoke and had the same set of images may have been beneficial because it could have helped the children to believe they were all getting the correct answers before switching to the target child's images. This trial would have aided in the confidence of the participant's answers and in turn may have persuaded them to conform to their peers. Early childhood is a time where children

find themselves learning by observing then imitating (Tomasello, 1999); perhaps the extra trials would have allowed the child to observe what others were saying and want to imitate their peers, thus leading to conformity. The current study did not include a speak-no-conflict condition to their study, which may have resulted in a lack of conformity. The researchers also suggest that it may have been as simple as the child being unable to adequately hear their peers.

Lack of Conformity Due to Participant Motivation and Attention Difficulties

Other explanations for the lack of conformity might include a variety of different participant motivations and the difficulties that young children experience in focusing their attention on one task for a prolonged period. The participants of the present study were informed that they would receive a sticker for playing the game. Since there was a reward that they were aware of prior to completion, this may have influenced how they gave their answers. The participants may have wanted to give the correct answer regardless of what the others in the group gave for answers to ensure they received a sticker. While it was never explicitly told to the participants that they must answer correctly in order to receive a sticker, the researcher did say, "If you all play the game, you get a sticker." The sticker could have been perceived as a low-stakes reward for some of the children in the group.

Another factor to consider when seeking to answer why conformity was not found in the current study is to observe the time of day the study was completed. Data was collected directly after the participant's snack time. This time of day proved to be a difficult time to retain the children's attention for very long. The children would wake up from a nap and have a snack, after which the researcher would begin to conduct their study. After snack, the children were restless, and it was difficult for them to sit in one spot for a long period of time. The researcher tried to account for this by taking a break in the middle of the study to stand up and "shake out the crazies" but found that the children still had a difficult time paying attention. The researcher also asked the participants to "turn on their listening ears" to what the other children were saying, but in many cases, it seemed that some of the children were distracted. The time of day in which the data was collected for this study may have dramatically impacted participants' motivation to engage with the matching game.

Due to the inherent limitations of the current study, future research should look at how both the methodology of the study and the motivation of the participant might impact illustrations of conformity. For instance, the time of day may affect conformity, and research should explore whether children of varying ages are more likely to conform in the morning, afternoon, or evening. Based on the small sample size, future research should see if this can be replicated.

Conclusions

Although the current study was a close replication to Haun and Tomasello's (2011) study, conformity was not found amongst the participants in the current study. The current study demonstrates that conformity might not always be found in children between the ages of two and five. Conformity has been explored by

renowned psychologists such as Sullivan Asch (1956) or Haun and Tomasello (2011). Conformity is also considered a natural occurring phenomenon that continues throughout a person's lifespan (Schillaci & Kelemen, 2014). However, the lack of conformity in this study suggests that conformity may not exist in the lives of toddlers and children in early childhood. It is possible that conformity may not exist in early childhood or conformity pressures may be stronger as children develop a greater awareness of their social environment.

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Investigation into the Etiology of Black Crappie Sarcoma

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Abstract

Black crappie sarcoma (BCS) is a disease affecting freshwater lake systems in western Wisconsin. It manifests in the form of tumors on black crappies, *Pomoxis nigromaculatus*, and has been associated with other characteristics such as lesions on the flank, pectoral, anal, and caudal fins. The cause of the sarcoma and its effect on infected fish is not completely understood. Previous studies using next-generation sequencing to detect an infectious agent from tissue cultures have not been productive. The transmission route of the disease is unclear, and the lack of published information is causing a rise in concern for lake residents as BCS appears to be spreading. An analysis of the lake depth to surface area ratio suggests that size may have an effect and watershed may be a key mechanism for distributing BCS to new lakes. Using 2-D PAGE gels, we identified an altered protein profile in the tumor tissue when compared with healthy tissue and observed abnormal cells egressing from BCS lesions. These findings offer evidence of molecular and cellular changes in infected black crappies and provide a reference for additional studies of the disease.

1.0 Introduction

1.1 Overview

Fish can be an indicator for the overall health of lake systems (Weyl et al., 2010). Although some illnesses affecting the swim bladder cause fish to float, casualties from disease generally go unnoticed in aquatic ecosystems. Diseases in aquatic species rarely undergo investigation unless they involve a high death count, or it appears in fish hatcheries. Occasionally, game fish diseases such as walleye dermal sarcoma cause a decrease in a lake's fishing industry and provides an impetus for investigation (Rovnak & Quackenbush, 2010).

It is important to note that disease not only negatively impacts the species in question, but it also affects local economies. Tourism is a large source of revenue for businesses near bodies of water (Hall & Härkönen, 2006). Bringing business to bait shops, grocery stores, motels, and gas stations, black crappies are a valuable resource because their meat is prized. When outbreaks of bacterial, fungal, or parasitic disease occur, fishing tourism declines in those areas, and the local economies are harmed in the process (R. Boyd, personal interview, 2018).

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Kayla was a member of the Honors College.

According to the Wisconsin Department of Natural Resources (WDNR), BCS was first reported in 1980 in Staples Lake, Polk County. Almost thirty years later, BCS is now consistently seen in over 35 lakes in St. Croix, Polk, Pierce, and Barron counties in Wisconsin (A. Cole, personal interview, April 9, 2018). The dates of the first recorded occurrence on each lake indicate that BCS may be using streams and tributaries to spread from lake to lake, and the dramatic rate of apparent infection has concerned lake officials and residents.

Efforts have been taken to identify the cause of this disease. A histopathology report performed by the U.S. Fish and Wildlife Services showed evidence of a round-cell cancer penetrating deep into the tissue and named the disease black crappie sarcoma, but they were unable to identify the etiology (Fish Vet Group 2015, case no: 006/15). A research group at the University of Florida College of Veterinary Medicine headed by Dr. Tom Waltzek used next generation sequencing in an attempt to identify the sequence of a virus found within the tissue, but it was not successful (T. Waltzek, personal interview, October 9, 2018; R. McCann, personal interview, October 18, 2018). Because the cause remains unidentified, the WDNR has recommended that fish impacted by BCS not be eaten (Legge, 2016). If caught they should be discarded, however they still count towards the total limit that can be caught by a fisherman (A. Cole, personal interview, April 9, 2018). Because of this, many people return the infected fish to their native lake but keep the unaffected fish. This could result in increased concentration among the black crappie population.

There are some details about black crappie and BCS that makes the disease a complicated problem. Black crappies are widely distributed throughout the United States and are closely related to other members of the sunfish family, but BCS has been observed only in Wisconsin black crappies. While there have been different attempts to identify the cause of BCS, they were all inconclusive. It is thought that BCS could be caused by a relatively common fish pathogen, but it is manifesting differently in certain locations. Therefore, the reason specific bodies of water are susceptible while others remain untouched requires further inquiry.

1.2 Black Crappie Sarcoma

BCS manifests with several symptoms that vary in severity. The disease is named for raised tissue that is sometimes found under lesions that hemorrhage blood. Fish pathologists from the U.S. Fish and Wildlife Service, La Crosse Fish Health Centre, found that this tumor exhibits characteristics of a sarcoma, starting near the epidermis and forming deep muscle tissue infiltration of a round-celled cancer (Fish Vet Group 2015, case no: 006/15). The most characteristic symptom of the disease are lesions at specific areas around the fish's body and fins. These areas include the mid-body, lateral line, the skin around the gills, around the mouth, around the caudal fin, and the membrane between fin rays on all fins (fig. 1). Blood flows from the wound at varying rates depending on the severity of the lesion. Extended time outside of the water leads to coagulation of blood on the epidermis. It has been noted by fishermen that blood clots can be seen around the swim bladder or in the muscle tissue pointing to possible internal hemorrhaging. The US Fish and Wildlife La Crosse Fish Health Centre histopathology report indicated no injuries to the internal organs. Fish that exhibit the standard laceration patterns do not always visibly show

a tumor. It is not known if the tumor is the primary manifestation of the disease or a secondary infection. It is possible that the lacerations are the only indicator of the disease and that they lead to secondary infection which causes tumors.

Fishermen have reported seeing the lesions and tumors on fish about 10 to 15 inches IN length, but it is rarely seen in fish smaller than 9 inches. In lakes where it is only beginning to appear, the infected fish seem to show deeper lesions than in lakes that have had the infection for years. In long established lakes, the infection rate stays around 15 to 20 percent regardless of the season (A. Cole, personal interview, 2018). Fishermen have stated that some infected fish do not appear diseased when hooked during the summer or winter months, fighting as hard as healthy fish. They are not aware of the fish's lesions until they have been laying on the ice or in holding buckets. It is currently not known whether BCS is fatal.

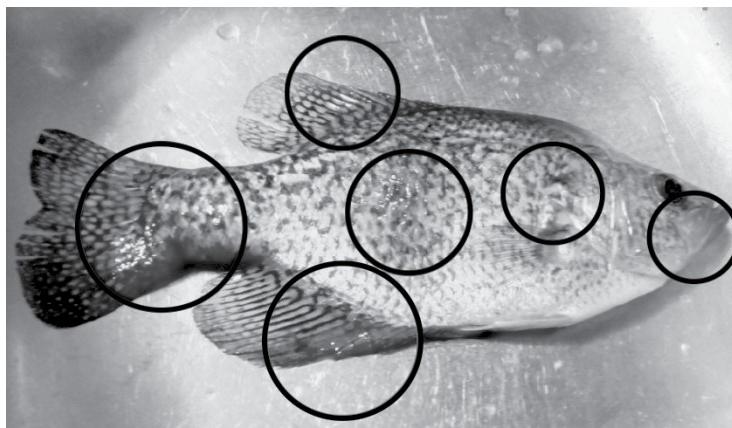


Figure 1: *P. nigromaculatus* displaying BCS lesions. The circles indicate areas that commonly show lesions, although it's rare to see more than three lesions on one fish, caught from Upper Turtle Lake. Image of fish provided by the Wisconsin Department of Natural Resources.

1.3 Other Fish Diseases

Fish disease is often difficult to diagnose using visual clues alone. While some diseases may show symptoms on the epidermis, others will affect organs such as the kidney, spleen, and swim bladder. More aggressive pathogens will attack the brain and nervous systems of their hosts causing strange behavior, while others can cause hemorrhaging throughout the body (Iowa State University, 2007). Several fish diseases cause hemorrhaging, but they do not fit the typical list of symptoms associated with BCS.

1.3a Viruses

BCS is commonly compared to Viral Hemorrhagic Septicemia (VHS), a disease caused by the rhabdovirus Viral Hemorrhagic Septicemia Virus (VHSV). This virus is often associated with salmonids and is known to infect over 50 species of freshwater and marine fish including black crappies. Depending on the species, some fish develop subclinical infections while others have severe symptoms and

high mortality (Iowa State University, 2007). Massive die-offs have occurred in several freshwater species in Lake Superior and Lake Michigan. Symptoms include hemorrhaging of internal organs, skin, and muscle along with listless swimming, or hanging just beneath the water surface. Skin hemorrhaging appears in sporadic patterns from different points on the body (Iowa State University, 2007). Comparing BCS to VHSV, BCS infected fish have a localized, patterned lesion display and do not show tropism for the brain. The way BCS and VHS manifest suggests that the two diseases are not caused by the same virus.

Retroviruses have been known to cause neoplasms in other vertebrates, including thirteen proliferative diseases in fish (Coffee et al., 2013). Examples include walleye dermal sarcoma and muskellunge and northern pike lymphosarcoma. These viruses are spread by contact during spawning season (Rovnak & Quackenbush, 2010). This should be investigated further as BCS could be the manifestation of a virus and spread the same way.

1.3b Bacteria

Of all bacterial infections, the disease most like BCS is bacterial hemorrhagic septicemia (BHS), also referred to as general septicemia disease or motile *Aeromonas* septicemia. Considered one of the most common disease-causing motile bacteria throughout the world's freshwater systems, many members of the genus *Aeromonas* are part of the normal intestinal microflora in healthy fish. These rod-shaped bacteria are opportunistic and will infect the host if it is in stressful conditions including high water temperatures, low dissolved oxygen levels, accumulations of waste products, and overcrowding. The primary pathogen for BHS is *A. hydrophilia*. The most common time to see outbreaks of BHS is during the summer months when the water temperature increases and, as a result, dissolved oxygen decreases (Lasee, et. all, pg. 32-33). It is most often seen in warm water ponds and fish hatcheries. External signs of BHS are exophthalmia, reddening and ulceration of the skin, as well as a distended abdomen containing ascitic fluid. It should also be noted that the base of the fins and fin membranes may be inflamed. Petechial hemorrhaging, which is caused when capillaries bleed into the skin, in the intestine and inflammation of the vent is also seen. Internally, the liver may become discolored and the kidneys are often swollen (Hanson, et all. 2014).

The US Fish and Wildlife Services Fish Health Centre in La Crosse, WI looked for specific pathogenic bacteria in the tumor-like tissue using biochemical tests and special agars. According to the 2013 histopathology report, all tests to identify the etiology were negative (Fish Vet Group 2015, case no: 006/15). A necropsy performed at UW-Stout on black crappie specimens harvested in March 2019 from Lake Wapogasset revealed that there was no apparent organ damage as described above. With this evidence, along with BCS seen during the winter, a time of low water temperatures and high dissolved oxygen, BHS was labeled as an unlikely candidate for the cause of BCS.

1.4 Lake Quality Analysis

The current study examined lakes in Polk County for a statistical correlation

relating presence of BCS to both surface area and depth of the lakes. This analysis was explored to determine whether physical characteristics of the lake contribute to conditions necessary for manifestation of BCS, and therefore, a clue to its etiology. When the affected lakes are compared to other lakes in Polk County, all lakes larger than 1000 acres contain BCS (fig. 2). Presence of BCS is significantly more likely to occur in lakes with greater surface area ($P=0.016$) and depth ($P=0.019$). It is possible that larger lakes in the county undergo seasonal transitions such as temperature changes and thermocline shifts that foster manifestation of BCS. Also, this study does not exclude the possibility that heavy recreational use on larger lakes leads to a greater likelihood of BCS being reported by those actively fishing. It's possible that the disease may show transmission patterns similar to those seen for invasive aquatic species. If so, boats could carry infected black crappie blood or bilge water from affected lakes into unaffected lakes.

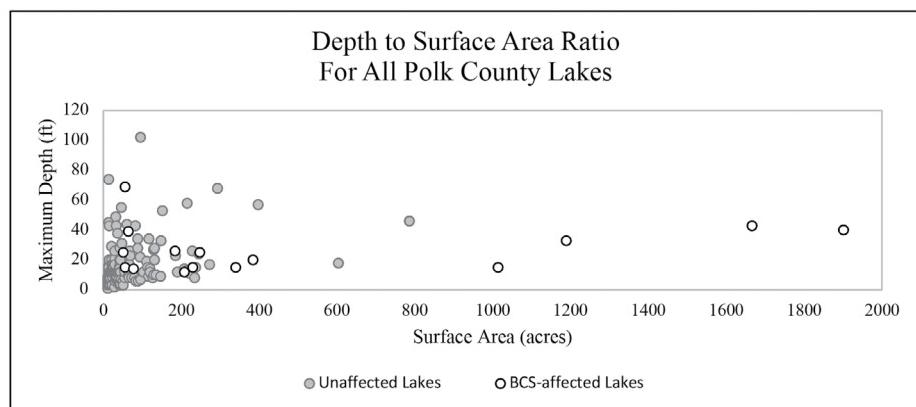


Figure 2: The surface area and maximum depth of all lakes in Polk county, WI. Shown are all lakes with a surface area over 10 acres. Affected lakes are noted by empty circles and unaffected lakes are labeled with filled circles. Data were obtained from WDNR Lakes Database (2019).

The WDNR Lakes Database includes some important notes about algae problems and mercury contamination. Some counties, however, were not thoroughly described. Consequently, there is no definite evidence that the lake conditions could be causing infections. Out of the described lakes, five out of the total 31 lakes were contaminated with mercury and four had an unknown pollutant.

Unhealthy lake conditions can lead to native fish becoming stressed. Elevated water temperatures, low dissolved oxygen, chemical contamination, and other environmental factors can increase fish stress and make them prone to infections. Many lakes are surrounded by farmland or lake residents which could be contributing to high levels of nitrogen and phosphorous into water systems (River, L. C., Creek, P., & Rivers, R. C.). The mixing of deep, high-nutrient water and warmer surface water causes toxic cyanobacterial blooms. These blooms can lead to higher water temperatures and their toxins could affect the natural community's health (Minnesota Pollution Control Agency, 2019).

1.5 Lake Systems

A critical characteristic of disease-causing agents is transmissibility. If BCS was isolated to a few lakes, it includes the possibility of synergy with chemical contaminants or even localized genetic features in black crappie populations. However, many lakes in western Wisconsin are connected in some way by rivers or streams and there is a chance that the lakes showing BCS were connected by streamflow. If so, this may point to watershed as a main route of transmission and may suggest an infectious agent is involved.

The WDNR data delivery system, called the Surface Water Data Viewer (SWDV), was used to map all the surface water in the affected counties and show minor rivers and streams that most maps leave out. With this tool, connections between lakes were drawn to elucidate actual connectedness in local lake systems. Using this tool along with report data, there may be a possible infection route between lakes. The described lake systems, while they are not interconnected, are within close proximity of each other. BCS may appear in new lake systems by birds carrying infected black crappie carcasses to new lake systems, spreading the infection to rarely trafficked lakes. BCS may also spread from one lake system to another via boat traffic, a common transmission route for diseases and invasive species. In these maps, intermittent streams are labeled with dotted lines while solid lines mark continuous rivers and streams. Intermittent streams normally cease flowing for weeks or months each year. The lake system numbering method provides unique identifiers (Fig. 3).

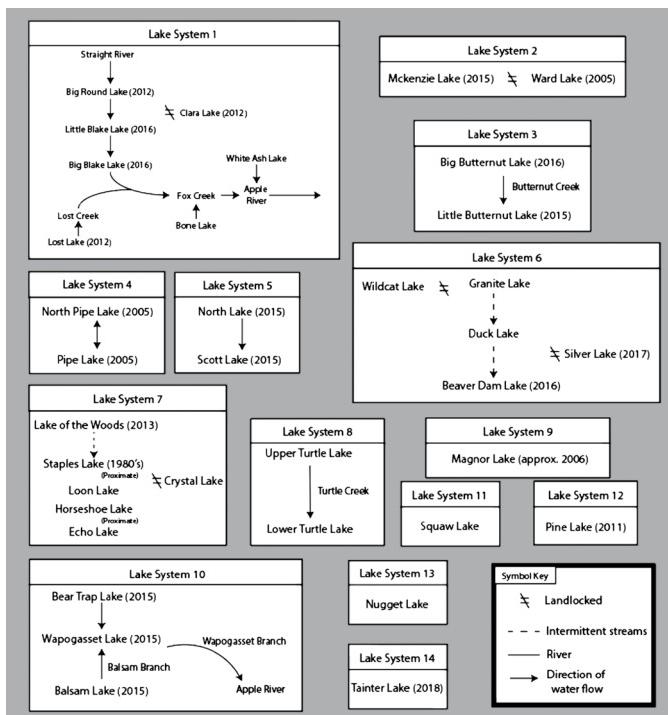


Figure 3: Lake system diagrams that visualize the direction of water flow through the BCS-infected lakes in Polk, Barron, St. Croix, Pierce, and Dunn counties. The river order system was used to determine water current direction. Data was inferred using the DNR Surface Water visualizer (2019).

2.0 Methods

2.0a Experimental Animals

Two black crappies exhibiting signs of BCS were collected from Lake Wapogasset, Polk County, WI on 23 April 2019. Specimen 1 was four years old (aged by scale), female, and had a standard length of 24.25 cm. This fish had a lesion 4 cm diameter with severe necrosis located in the center of the flank. Specimen 2 had a 2 cm lesion in the same area with hemorrhaging on the anal fin. This fish was approximately four years old (aged by scale) and had a standard length of 27.25 cm.

Two additional black crappie specimens exhibiting signs of BCS were obtained from Beaver Dam Lake, Barron County, WI on April 28, 2019. Specimen 3 was female, 3.5 years old (aged by scale) and had a standard length of 29 cm. Specimen 4 was female, 2.5 years old (aged by scale) and had a standard length of 27 cm.

Fish were euthanized by tricaine methanesulfonate overdose at 250 mg/L.

2.1 Protein Extraction from Abnormal Tissue

2.1.1 Collection of tissue

Specimen 1 was selected for protein extraction. After euthanization, fish were disinfected by immersion in a 200 ppm hypochlorite solution at 4°C for five minutes and thoroughly rinsed in chlorinated tap water to remove excess disinfectant. Abnormal tumor-like tissue was collected from below necrotic tissue of the fish using a forceps and scalpel sterilized by dipping in ethanol and allowing time to air-dry completely. Normal tissue was collected from the opposite side of the body. Both tissues were treated with the same protocol.

2.1.2 Tween 20 extraction

One ml of lysis buffer (1% Tween 20, 1% Tris-HCl) was added directly to tubes containing tissue. The samples were vortexed for five minutes. The tube was moved to a small incubator at 50°C and was rocked overnight. Samples were vortexed again for 10 minutes and remaining particulates were pelleted by centrifugation at 13,000 rpm for 20 minutes. The supernatant was collected and transferred to a sterile 1.5 ml Eppendorf tube. This protocol was adapted by Ericsson C., Nistér M. (2011).

2.1.3 PAGE gel analysis

To gather proteins for analysis, 50 µl of each tissue sample and 50 µl of 2X SDS sample buffer (containing 2.5 % SDS) was boiled for 5 minutes. The resulting denatured proteins were run on a BIO RAD Mini- PROTEAN Tris-Tricine (16.5%) Precast Gel with a standard of BIO-RAD Precision Plus Protein Standards Unstained. Gels were stained in Coomassie Brilliant Blue R-250 overnight and destained over 48 hours with 40% methanol and 10% glacial acetic acid solution. The gel was imaged with white light using a BIO-RAD VersaDoc 4000MP imaging system.

2.2 Creating primary culture using *P. nigromaculatus*

2.2.1 Growth medium

Minimum essential medium Eagle (Eagle MEM M4655, Millipore Sigma) was supplemented with 10% fetal bovine serum (Sigma-Aldrich). As a precaution against fungal or bacterial infection, Antibiotic Antimycotic Solution (Cell Applications, Inc., 010-100) was added.

2.2.2 Collection of tissue

Specimens 1, 2, 3, and 4 were euthanized via over-anesthetization with 250 mg/mL tricaine methane sulfonate (ethyl 3-aminobenzoate methanesulfonate) (Sigma-Aldrich (E10521)). Fish remained in medicated water for 20 minutes after cessation of movement to ensure death by hypoxia. They were then immersed in a 500ppm hypochlorite solution at 4°C for five minutes. Specimens were then rinsed thoroughly in chlorinated tap water to remove excess disinfectant.

Fish were pinned to a dissecting tray rubber mat using two surgery needles through the orbit and the muscular base of the tail with the tumor facing up. Ethanol (70%) was sponged onto the surface of the fish. Necrotic tissue, scales, and epidermis were removed. Scalpels were sterilized using ethanol (70%) and used to remove pieces of tumor tissue. The tumor tissue was transferred to a sterile petri dish. Muscle without evidence of necrosis from the opposite side of the specimen was removed and transferred to a sterile petri dish. Both tissue samples were processed identically. This protocol was adapted from Wolf, K. and Quimby, M.C. (1976).

2.2.3 Mincing muscle tissue

Tissue was minced using two sterile scalpels until pieces were approximately 2 mm in size.

2.2.4 Planting of Minced Tissue

A pipette tip was used to gather minced tissue fragments and they were transferred to a 6 well cell culture plate (Corning 3206 Costar, catalogue no. 07-200-80). Three ml of growth medium was added to cover the tissue pieces. The plate was moved to a 20°C incubator and was incubated for cell growth and attachment.

2.2.5 Cell Monitoring

Cytospin™ slides were made of normal tissue supernatant and abnormal tissue supernatant each day for five days after tissues were excised. Slides were stained using Diff Quik™ (Dade Bering, Newark, DE, USA) and analyzed using microscopy. Data about cell size and density was taken 24 hours after extraction using a Millipore Guava easyCyte™ flow cytometer.

3.0 Results and Discussion

SDS PAGE gels were used to show differences in protein expression comparing the abnormal tumor and healthy muscle in BCS-infected fish. The protein sizes were shown in kilodaltons (kDa) and were found by measuring the distance each band in the standard moved and correlating that with the size of each protein band. Using these measurements, a standard curve was created that related distance traveled to the size of the denatured protein.

When comparing the normal and diseased tissue, there were notable discrepancies in protein bands. An unidentified protein at 15 kDa in the normal tissue was strongly reduced or absent in the abnormal tissue (fig.4). The change in protein expression between the normal and abnormal tissues could be associated with abnormalities in the diseased tissue, such as the different textures or loss of normal cell anchoring mechanisms.

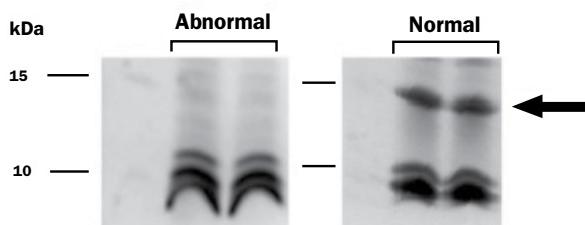


Figure 4: PAGE Tris-Tricine gel (Bio-Rad) stained with Coomassie Brilliant Blue R-250 from specimen 1. Standards used were Precision Plus Protein Unstained Standards (Bio-Rad). Normal lanes (right) contain proteins from muscle tissue harvested on side opposite of lesion. Abnormal lanes (left) are proteins extracted from tumor-like tissue. The arrow identifies a 15 kDa protein found in normal tissue but reduced in the diseased tissue.

The normal muscle appeared flaky and white with minimal blood. As it was being minced, the medium used to assist in mincing remained clear. After re-sterilizing the equipment, the tumor-like tissue was collected from under the lesions of affected fish. The necrotic tissue was scraped away, the area was descaled, and the skin was cut to expose as much muscle tissue as possible without contacting the epithelial layer. Although the skin was treated to reduce bacterial contamination, there were instances where cultures of fin or epidermal tissue began incubating bacteria shortly after being put in culture. This may signify a need to change disinfecting protocols. The tumor-like tissue was unusually soft with a rubbery consistency and was cream-colored. When cut, the abnormal tissue turned the mincing medium cloudy, suggesting the cells had lost normal anchoring mechanisms. The minced tissue was collected and placed into a sterile six-well culture plate where it was immediately viewed under an inverted microscope at 200X. The cloudy medium had an abundance of small cells that were not found in the healthy tissue from the same fish.

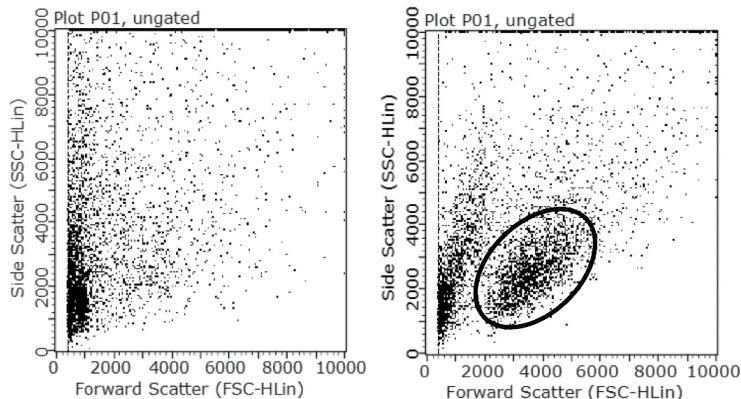


Figure 5: Flow cytometry of cells in normal tissue and tumor-like tissue supernatant after 24-hour incubation. A total of 5,000 cells were analyzed for each run. Side scatter indicates cell granularity and forward scatter relates to cell size. Each point on the figure describes a single cells size and complexity. Flow cytometry data of supernatant from (A) normal tissue and (B) BCS tissue supernatant. The circle identifies the population of abnormal cells present in BCS tissue.

When analyzed on the flow cytometer, the difference between cells from the healthy tissue and the abnormal cells was apparent (fig. 5). The red blood cells were represented as a significant population that was uniform in size and shape. Flow cytometry of the abnormal tissue showed a population of red blood cells at the same size and granularity as the healthy tissue. However, the BCS tissue included a large population of abnormal cells (see the red circle in fig. 5B). The population of particulates that lie within the red circle in fig. 5B accounts for 36.5% of all particulates in the abnormal tissue whereas the value is only 6.5% in the normal tissue. Microscopy of cytopsin slides from these tissues visually confirm the presence of abnormal cells in the diseased tissue (fig. 6). The red blood cells are small and had a uniform nucleus (Clauss, et al. 2008). The abnormal cells were approximately the same size as the red blood cells, but unlike the red blood cells, they all had an enlarged, irregular nucleus.

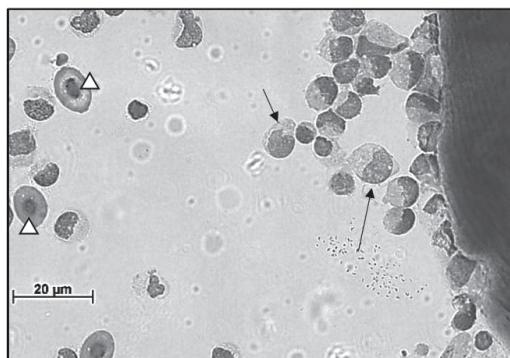


Figure 6: Cells collected from the lesion of a BCS-affected fish (1000X). The triangle indicates fish erythrocytes typical of those found in normal and diseased tissue. The arrow identifies an abnormal cell representative of those found only in the diseased fish tissue.

The abnormal cells exhibited many physiological traits of cancer cells. In figure 6, the cells show a disorganized arrangement, large and variably shaped nuclei and enlarged nucleoli (LaMorte, 2016). Visually, these abnormal cells appear to exhibit the qualities of a round cell sarcoma as described by the US Fish and Wildlife Service (Fish Vet Group 2015, case no: 006/15). We were unable to demonstrate hallmark traits of malignancy in-vitro due to the requirements of fish tissue cells, but this would be an area for further exploration (Hanahan & Weinberg, 2000). The origin of these abnormal cells has not been determined and identifying these could create a more accurate name for the disease, as BCS is used mostly as a placeholder name among public discussions.

4.0 Conclusion

The current study in black crappie populations in western Wisconsin was carried out to advance our understanding of BCS, a disease with both ecological and societal impact. The results provided herein advance our understanding of this condition using topographical, cellular, and molecular analyses of affected fish.

This study provides new evidence to support the view that BCS may be transmitting along streamflow patterns with possible additional distribution from natural and anthropogenic transport of fish or their tissues. Movement of an infectious agent would be consistent with this disease transmission profile, possibly owing to an oncogenic bacterium or transforming virus that has resisted discovery at this time. However, our data do not preclude possible environmental pollutants or genetic predisposition to disease in a subset of the fish population.

Our cellular analysis of diseased tissue advances existing knowledge of this disorder by supporting the notion that lesions of impacted fish contain abundant cancerous cells that can be extracted for analyses including cell culture, flow cytometry, and microscopy. The ability to harvest living cancer cells from the tissue presents a spectrum of novel approaches toward future exploration. Molecular analyses of diseased tissue suggest cancerous cells demonstrate altered protein expression, possibly including downregulation of profilin, a 15-kDa protein required for cell anchoring and tissue integrity. We speculated that the 15 kDa protein mentioned in figure 4 could be profilin, a 15 kDa protein that regulates the cytoskeleton and binds to actin (Muraro & Alonzi, 2012). Found within all eukaryotic cells, profilin is considered a molecular adhesive required to ensure the integrity and maintenance of muscle sarcomeres and is expressed in the white muscle of other fish (Zhang, et al., 2010). If profilin is indeed reduced in the abnormal tissue, it could explain why these small cells are easily liberated from the area and why they do not have the ability to contract like normal white muscle. There was no molecular approach used to identify that this protein is profilin, and the observation was based solely on molecular weight.

In sum, results of this study offer new insights into an emerging fish disease with significant impacts to a local economy dependent upon tourism and recreation.

5.0 Acknowledgements

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LGBTQIA+ Needs in Temporary Living Communities

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LGBTQIA+ Needs in Temporary Living Communities

Temporary Living Communities (TLCs) are one of the biggest providers of housing for LGBTQIA+ (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, plus additional identities not listed in this acronym) folk, with LGBTQIA+ youth being the most likely demographic to identify as homeless. For brevity and clarity, this paper will refer to the LGBTQIA+ population by the word "queer" (although this term may appear offensive to some, many queer individuals have reclaimed this term as a way to take power away from their oppressors by making the meaning positive instead of negative. I will be using the positive version of this term as well in my paper). Previous studies have estimated between 11 and 40 percent of all homeless youth identify as queer (Ventimiglia, 2012; Cochran, Stewart, & Ginzler, 2002). However, this number is hard to define due to the lack of a nationwide study (Whitbeck, Chen, Hoyt, Tyler, & Johnson, 2004) and because many disadvantaged queer youth do not disclose their identities because of the stigma of identifying as queer and possibly not wanting to risk being outed to their peers (Berberet, 2006). I want to investigate this topic deeper by examining how TLCs in the United States affect queer youth and if they adequately support their transition to being functional members in their communities.

Queer folk are also more likely to be disowned by their families because of their identities and forced into homelessness at an early age (Cochran et al., 2002; Gangamma, Slesnick, Toviessi, & Serovich, 2008; Rew, Whittaker, Taylor-Seehafer, & Smith, 2005; Whitbeck et al., 2004). Therefore, it is reasonable to say that most queer youth currently struggling with homelessness have not had the guidance or support needed to acclimate into the world of adulthood. Many of them have been forced to leave their childhood homes rather abruptly and face independence far before they were ready to do so. It is with this reasoning that it could be argued that TLCs should be focusing on meeting the specific needs of this vulnerable population to ensure their success and further development into adulthood. Unfortunately, current research shows that most TLCs do not offer any LGBTQIA-specific services (Prock & Kennedy, 2017) and many face gaps in the services that they do offer (Maccio & Ferguson, 2016). I outline some of these service gaps in the sections below.

I will also be arguing from the perspective that a TLC's focus is to rehabilitate their residents so that they can thrive in the local economy and social environment. Although some people may assume that homeless people are merely lazy or disorganized, many studies show that homeless people face many obstacles to becoming non-homeless that are deeply ingrained into our societal, political,

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judicial, and economic systems (Nishio, et. al., 2017; Piat, et. al., 2015; Verstraete, Pannecoucke, Meeus, & De Decker, 2018). Many people view aiding homeless populations as representative of giving away unearned services that should be provided by the work of one's own hands. However, most TLCs focus on assisting homeless individuals by preparing and supporting residents to succeed and thrive socially and economically.

Methodology

The purpose of this systematic literature review was to retrieve and curate a list of needs of queer, homeless youth that are not currently widely addressed by Temporary Living Communities (TLCs) across the United States.

Search Methods

An electronic search was performed using the University of Wisconsin-Stout Library's research database, EBSCO. The search was performed by the author in July 2019 to identify published studies from 2005 to 2019. The search terms used include terms such as "LGB", "LGBT", "LGBTQ", "LGBTQIA", "Temporary Housing", "Needs Assessment", "Homelessness", and "Retention". After this initial search, additional articles were identified by searching reference lists of articles already retrieved. In all, 50 database records were identified as potentially relevant documents based on the titles and abstracts. Of the 50 full papers, 20 were selected for inclusion and 30 were excluded from this review based on the inclusion criteria listed below.

Inclusion Criteria

The titles and abstracts were analyzed for relevance to the inclusion and exclusion criteria. Case reports that were based on the needs of queer, homeless youth and related populations (ex. homeless youth, housing insecure youth, youth that are more likely to face abuse and harassment) and provided strategies to fulfill those needs were included in this review. Opinion papers, letters to editor, non-English-language and commentary articles, and participatory programs related to needs assessments of other non-related populations were excluded in this review.

Review of Literature

As part of our review, I wanted to identify current need gaps in domestic TLCs for queer, homeless youth. The following list is in addition to the more general needs that are needed by most homeless youth including employment services, financial assistance programs, legal services, and skill-learning courses. In fact, one could argue that the very purpose of a TLC should be to provide or endorse these specific services so that their residents can thrive and become reintroduced into the local community with a stable job and stable housing.

Mental Health Services

One of the biggest needs of queer, homeless youth, by far, is the need for mental health services. Queer, homeless youth are more likely than their heterosexual

peers to experience clinical depression, anxiety, and other mental health issues (Gangamma et al., 2008; Whitbeck et al., 2004; Cochran et al., 2002; Gattis, 2013; Van Leeuwen et al., 2006). Additionally, many queer-specific counseling centers tend to focus on adult populations which can be intimidating for queer-identifying youth (Maccio & Ferguson, 2016). Queer youth also face discrimination practices and service refusal among mental health service providers which leads to increased distrust in similar services (Kidd, 2003, 2004).

AODA Rehabilitation Services

Similarly, queer, homeless youth are more likely to abuse alcohol and other drugs (AODA) than their heterosexual and cisgender peers (Cochran et al., 2002; Gattis, 2013; Whitbeck et al., 2004; Van Leeuwen et al., 2006). Many use these substances as self-medication tactics, for survival reasons (for example, staying awake to avoid victimization) or to simply be used as a bridge to socialize with other homeless youth (Cochran et al., 2002; Whitbeck et al., 2004; Ferguson, Bender, Thompson, Xie, & Pollio, 2011; Ginzler, Cochran, Domenech-Rodriguez, Cauce, & Whitbeck, 2003; Tyler & Melander, 2015). Substance use education and counseling is already required for TLCs that are supported by a Family and Youth Services Temporary Living Program Grant. However, queer, homeless youth are also more likely to avoid counseling services due to a fear of being discriminated against by staff and other homeless youth (Durso & Gates, 2012). Despite their refusal to use queer-specific services, queer, homeless youth need such focused services due to their needs being much different from their heterosexual, cisgender (i.e. their biological sex matches with their gender identity; ex. a male identifying as a man) peers.

Relationships with Providers

Since queer, homeless youth tend to avoid service providers, it is important for service providers to be trained in establishing relationships with all homeless youth and providing holistic care. It is also impossible to identify homeless youth with queer identities, especially since most homeless, queer youth are not "out" to their peers (Gattis, 2013; Whitbeck et al., 2004; Hunter, 2008; Shelton, 2015) and often display "typical" masculine and feminine features and personalities to keep themselves safe. Additionally, if providers can show that they care to non-queer, homeless youth, word will spread to queer youth that this provider is not like the rest. These providers should also be trained in the needs of queer, homeless youth so that they can provide the best care possible.

LGBT and HIV-Focused Sex Education

As well as queer-specific approaches and care plans, queer-specific sex education courses were listed as the top two service needs as identified by queer, homeless youth in surveys conducted by Wells, et al. (2013). However, despite being the highest self-rated need among queer, homeless youth, there is hardly any research done on queer-specific sex education for runaway or homeless youth. This is alarming since queer, homeless youth are more likely to engage in survival sex (sexual favors for money, food, shelter, and in exchange for not being physically, mentally, or sexually

abused, among other reasons) than their heterosexual peers (Gangamma et al., 2008; Whitbeck et al., 2004; Rice et al., 2013). Additionally, another study noted that homeless youth who abuse substances and engage in survival sex (three categories that disproportionately affect queer, homeless youth) are also likely to report also having Human Immunodeficiency Virus or HIV (Gangamma et al., 2008). Combined with the fact that queer, homeless youth are also more likely to engage in unprotected sex "all of the time" (Cochran et al., 2002), queer-specific sex education that includes the risks of HIV would be highly beneficial to this vulnerable population.

Anonymous Services

The last need found in the literature encompasses all of the above needs. Without services that allow queer, homeless youth to remain closeted (if they so desire) (Prock & Kennedy, 2017), all action plans to implement one or all of the above needs will not reach their full potential and are more likely to fail. Being "out" is a luxury that most queer, homeless youth cannot afford. Sleeping on the streets and remaining dependent on others to provide their needs means most queer, homeless youth cannot risk being kicked out or denied a service because of their sexual or gender identity (Prock & Kennedy, 2017). This means provided services *should not* be labeled as queer-specific and should be "generic" enough that all people, regardless of identity, can get what they need. One example is that counseling centers should not only be for queer, homeless youth since using the service "outs" all participants as queer. However, a counseling center can offer a range of services that include queer-specific therapies so that participants can "come out" safely to their therapists.

TLCs should also make an effort to use residents' preferred pronouns, names, and bathroom and room choices that make them feel the safest (Prock & Kennedy, 2017). Prock & Kennedy (2017) document one TLC's failure to meet these needs. Daniel, a transgender man, requested that a staff member put their preferred name on the whiteboard outside of their room instead of their dead name (a name that is no longer used by a person). This tactic is typically employed by transgender individuals who do not want to be recognized by their birth name), Danielle. Having their dead name posted on the outside of their room would out them as transgender, since Daniel often "passed" (i.e. appeared) as male. The staff member decided to not honor Daniel's request which led Daniel to choose to stay on the streets instead of the shelter because that was the *safer* option for them. Homeless, queer youth should not have to choose between living on the streets or being "outed" to their other homeless peers.

As you can see, there is a huge gap in services currently provided for queer, homeless youth. It should be a primary focus for TLCs to make their programs more inclusive and safe for all. TLCs should also acknowledge that minority groups all have different needs and that the needs of the queer community are only a small portion of services needed in all TLCs. Finally, demographics (i.e. religion, race, ethnicity, age, etc.) change from region to region which should be considered as well.

Discussion

This systematic literature review has gathered the evidence related to the needs of queer, homeless youth who use services and housing within TLCs. Our

findings mainly pointed out current gaps in services offered or endorsed by TLCs and focused on providing an economic and social defense of implementing queer-friendly services. Most of the service needs listed above help increase the likelihood of queer, homeless youth finding stable jobs and housing faster than those who do not receive these services. Other service needs help improve the overall wellbeing of queer, homeless residents while they are in TLCs. These services, although they do not directly affect the economic output of TLCs (i.e. producing productive members of society), decrease the hardship some residents may face such as medical bills, substance addiction, mental health issues, and discrimination from service providers. These hardships distract queer, homeless youth (as well as non-queer youth) from making advancements in their careers and personal lives which decreases a TLCs effect on the local, state, and national economies.

One of the limitations of our review was that there were no author searches and no hand searches of selected journals in the searching strategy. Another limitation of this review was that the findings summarized only the results of the published studies and I did not consider unpublished works (e.g., unpublished dissertations) in the searching phases of the review.

Policy Implications

The implications of this review indicate that the needs of queer, homeless youth are widely being ignored (or not fully satisfied) by most (if not all) TLCs in the United States (Prock & Kennedy, 2017). In addition to the biggest needs of all homeless youth (employment services, financial assistance programs, legal services, and skill-learning courses), queer, homeless youth also need queer-specific mental health services, AODA rehabilitation, queer and HIV sex education programs, personable relationships with service providers, and anonymous services and offerings.

Currently some TLCs offer queer-specific services such as support groups, LGBTQ-affirming therapy, gender-neutral bedrooms/bathrooms, medical/hormone therapies, and advocacy programs (Prock & Kennedy, 2017). Prock & Kennedy (2017) also note that these services are not widely used and are almost non-existent in the Midwest & Southern regions of the United States. I theorize that the reason that these services do not exist in these areas is because rural areas in the United States are more likely to have a majority religious population (Dillon & Henly, 2008; Smith & Bautista, 2018) which may fund a majority of these TLCs that do not offer queer-specific services, although more research needs to be done on this topic before any conclusions can be made.

This review has also noticed a surprising lack of definitions of what constitutes being homeless and how participants are identified as homeless in the articles that I used for this review. Definitions have historically varied from organization to organization with notable discrepancies and exclusion of populations who may be deemed as homeless in another setting (Hallett & Crutchfield, 2017). Definitions have varied from highly inclusive within the McKinney-Vento Homeless Assistance Act's definition (which includes populations that live in multi-family housing situations, motels, hotels, trailer parks, and camping grounds in addition to those who live in TLCs and public or private spaces not designated for human beings)

to highly exclusive (e.g. the United States Department of Housing and Urban Development definition: "must be consistently residing on the street or in a homeless shelter over a 12-month period or have 4+ episodes of homelessness over a 3-year period that accumulated to 12+ months") (Hallet & Crutchfield, 2017, p. 58-59). Both definitions have their benefits and drawbacks depending on the goal that they are meant to achieve. In the future, studies should not assume that the definition of homelessness is clear. Instead, they should provide how they determined the target population by describing their defining characteristics.

Lastly, this review suggests several services and policies that should be implemented to serve queer homeless youth who access TLCs and their services. First and foremost, TLCs need to provide mental health services to each and all of their residents. Additionally, counselors should be trained on how to treat and support queer patients that use their mental health services. Providers that offer holistic care and focus on the whole person are much more likely to be trusted and respected by queer youth. Next, TLCs need to offer more AODA rehabilitation services for those affected by alcohol or substance abuse. Queer, homeless youth are much more likely to participate in these risky behaviors as a coping mechanism as well as a social tool to make connections with other oppressed individuals. Next, TLCs should offer more queer and HIV-focused sex education programs to help address the likelihood that queer homeless youth are more likely to engage in unprotected sex "all of the time" and then being infected with sexually transmitted diseases such as HIV/AIDS. Finally, TLCs should focus on providing services that do not "out" their patients as queer. Services should be generic enough that all residents within the TLC are comfortable enough to use them. Once services are branded for queer individuals, the likelihood of queer youth using those services drastically decreases.

I also acknowledge the limitations that TLCs face to implement the services I have suggested above. Many TLCs are underfunded and cannot offer even basic services while others are overcrowded and understaffed (Emanuel, 2005; Brown et al, 2017; Nix, 2009). Reviews and studies that suggest a change in services should also acknowledge that financial support for TLCs also needs to be addressed by those outside of the administration staff in these programs. There are many advocates for increased federal funding for TLCs and programs. However, those advocates face a steep, uphill battle to support their claims in a culture that values those that "pull themselves up by their bootstraps." This American culture also view homeless people as lazy and a "lost cause" and any spending on assisting them is money that is wasted. Before advocates can push their viewpoint, they must first humanize the homeless population by revealing the true barriers people face to getting out of homelessness (Williams, 2016; Williams, 2008; Wilse, 2015).

In this review, I have provided a plethora of information to be used by TLCs in the United States. I acknowledge that some TLCs do offer queer-specific services, although most do not. I also recommend that future studies be aware of where their participants are coming from and how they define the term "homelessness" in their research. Finally, I acknowledge that this information is utterly useless without funding and support from the government and local communities. Our culture also needs to shift to a better understanding of the causes and effects of homelessness so funding homeless populations is not as taboo as it is today.

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Social and Emotional Ramifications of Having a Sibling with a Disability

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Abstract

The existing body of literature surrounding adults who have a sibling with a disability is limited and suggests there may be some differences in outcomes of their adult life when compared to peers who do not have a sibling with a disability. Areas where differences exist include marital and employment status, educational achievement (from less than a high school equivalent to a professional degree), and characteristics associated with emotional resiliency (Hodapp, et al., 2010; Wolfe, et al., 2014). Additionally, gender may be a contributing factor in how the experience impacts the adult without a disability (Hodapp, et al., 2010). This study utilized an online survey to examine the potential ramifications of family members with siblings with disabilities as compared to those without disabilities. Results indicate that marital and employment status have no difference, but there is a distinction in educational achievement and self-perceived emotional resilience characteristics. Additionally, gender does not have an impact on the sibling relationship. Potential areas for interventions and future research are discussed.

Keywords: disability, adult sibling, social and emotional ramifications

Disability rates throughout the United States have increased significantly since 2004 (Shapiro & Keating, 2017). Consequently, the number of families impacted by a family member with a disability has increased dramatically. Individuals of the family unit that may particularly face impacts are adult children who have a sibling with a disability (the subject group). Despite the significant population of people with disabilities in the United States, there is a paucity of research regarding this population and the sizeable number of impacts of a family member with a sibling with a disability. A limited amount of research delves into the experience of adult siblings and their unique roles and responsibilities as current or future caregivers or guardians (Doody, et al., 2010).

Adult sibling knowledge that their future will likely include continuous responsibility for their sibling with a disability impacts the choices they make; previous research on adult siblings suggests that, compared to their peers, adult women in the subject group marry later and have lower rates of divorce (Hodapp, et al., 2010). Even if they are not already taking on caregiver responsibilities, the knowledge that they eventually may need to provide extra support to the family or sibling may impact their decision to get married as they may not feel comfortable putting their needs first. Other research indicates that the subject group may have

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less education than their comparison group and may be less likely to be married, or more likely to be unemployed (Wolfe, et al., 2014). Moreover, differences existing within the adult siblings themselves have been identified in gender differences, such as sisters identifying more positive impacts in their personal characteristics and feeling closer to their sibling with a disability than brothers (Hodapp, et al., 2010).

The objective of this research is to explore and identify potential ramifications of having a sibling with a disability in adult life. The results of this study will help add to the current data surrounding adults with a sibling with a disability and identify areas that may benefit from interventions through specific family or social support in education or personal relationships. A self-reported survey was utilized to identify differences in marital status, level of education, employment status, how participants viewed themselves in specific traits, and perceived emotional closeness to the sibling with or without a disability.

Literature Review

The purpose of this literature review is to explore research which addresses the experiences and effects that the subject group experiences when raised with a sibling living with a disability. Having a sibling with a disability has different effects when compared to a typically developing sibling, and effects can vary through their personal and professional lives. Research has shown that the impacts of having a sibling with a disability are affected by both the type of disability (developmental, sensory, emotional, or physical health) and gender of the adult sibling without a disability (Hodapp, et al., 2010). Currently, there is a paucity of information about the experiences of siblings and much of the existing information is not self-reported; usually it comes from the parent's perspective. Additionally, the impact on the subject group has contradictory findings, with both positive and negative consequences existing (Tomeny, et al., 2017; Tozer, et al., 2013). Adults in the subject group face different challenges than adults without a sibling with a disability because of the different roles, experiences, and stressors like parental divorce, unemployment, binge drinking, or health problems that intersect (Wolfe, et al., 2014). Marriage status, employment, roles the sibling plays, and personal characteristics change when a sibling has a disability. This topic is close to me, as I identify as an adult sibling of two people with disabilities. My experience knowing other siblings through my personal life or social media support groups is that they also experience emotional or behavioral symptoms related to certain disabilities and even trauma from having a sibling with a disability that impacts their lives, and that they often do not feel supported or recognized by their family because their sibling with a disability may be the parent's priority.

Marital Status

Marital status has been found to have a positive and negative impact on the subject group in multiple studies. For example, siblings of adults with mental illness have been found to have both an increased rate of divorce and a decreased rate of ever having been married (Wolfe, et al., 2014). This may be attributed to the onset of mental illnesses during the adult years, meaning that siblings without a disability are

adjusting to their sibling's diagnosis and changes that that sibling is experiencing. If a mental illness is severe, it may disrupt their expected life path resulting in complex feelings of grief and frustration by that individual. Considering the large role siblings play in each other's lives, the adult sibling without a disability may feel responsible for their sibling's happiness and could focus less on their own relationships in favor of their sibling's. Marital status outcomes also depend on the type of disability that the sibling has. For example, the subject group did not have differences in relation to their peer comparison group in rates of having been married during their life. However, at the age of 40, siblings were less likely to be currently married and significantly more likely to be divorced (Wolfe, et al., 2014). The cause of this could be that developmental disabilities are diagnosed at a young age, which would give the adult sibling without a disability years to cope with their sibling's diagnosis and prepare for the associated responsibilities they might take on. They may spend more effort on preparing for guardianship when compared to peers without a sibling with a disability. Other research indicates that adult sisters may just be waiting longer to get married than their peers and are less likely to get divorced because of their extra focus on stability for their sibling with a disability, who would be directly impacted by the relationship (Hodapp, et al., 2010).

Education and Employment

Education and employment often play a significant role in an individual's time, effort, energy, and subsequent identity. Education level attained and employment status of the adult sibling can also be impacted, depending on the type of disability of their sibling. Adults who have siblings with a developmental disability were found to have no difference in level of education attained or rates of employment (Wolfe, et al., 2014). Unlike siblings with a developmental disability, adults in the subject group with a sibling who has mental illness have an increased negative impact in their education and employment realms. Adult siblings of individuals with mental illness were found to have less education and were twice as likely to be unemployed compared to peers (Wolfe, et al., 2014). This may be explained by the differences in the onsets of developmental disability and mental illness because individuals with developmental disabilities have a plan for their transition into adulthood and beyond, while mental illness onset can occur after adulthood and potentially become cyclical in periods of stability and instability. Because of that, any life plan may be disrupted, which could result in the sibling without a disability taking on an unanticipated caregiver role. If someone with a disability struggles with stability in their life, their adult sibling may feel compelled to help them find stability and engage in mental health treatment. The level of assistance needed may add to the adult sibling focusing on their sibling, and less on their own educational and career needs.

Impact of Gender on Self-Perceiving

Sibling gender has been found to influence the quality and impacts of the relationship between siblings when one of them has a disability. In a self-report, female siblings were found to consider themselves closer to their sibling with a disability than their male counterparts (i.e., brothers) (Hall & Rossetti, 2017). Sisters

also seem to have more positive experiences than brothers experience. Adult women reported feeling positive impacts in their capacity for empathy, understanding of others' differences, ability to learn through experiences, compassion for others, awareness of family dynamics and how their sibling with a disability impacts other family members, ability to manage responsibility, and awareness of injustices and discrimination against people with disabilities (Hodapp, et al., 2010). Existing literature has also indicated that gender impacts self-perceived health of the subject group. Both men and women self-reported good physical and mental health, but men (i.e., brothers) were associated with slightly higher scores in both their physical and mental wellness. This may be because sisters are typically expected to take on caregiver roles and may be more impacted by their sibling with a disability than a brother. Similar results were found in parental reports for minors; their children without disabilities had to mature at a younger age than peers who did not have a sibling with a disability and promoted a deeper understanding of advocacy, higher levels of empathy, and being more accepting (Dyson, 2010). Even at young ages, whether the parent promotes them into a caregiver role or not, the children without a disability are able to identify differences that their sibling with a disability experiences and develop characteristics to assist them.

Conclusion

Although advantageous influences exist, given the potential deleterious outcome on siblings who have a sibling with a disability, gaining greater understanding about their challenges would help identify potential areas of intervention to foster their personal and professional development. Current research highlights some delay or interference with intimate relationships, higher education, and employment success. There is very little data indicating how siblings view themselves, their role in the family, and their worldview. Understanding social and emotional reactions to living with a sibling with a disability can shed some light on the inherent challenges the subject group faces, as well as the impact on their self-concept and world view. Since there is limited data about demographic differences, this study will attempt to explore any potential demographic differences.

Methodology

This study is confirmatory in nature to discover potential relationships between characteristics of adults with a sibling living with a disability and adults that do not have a sibling with a disability. A survey was developed based on review of two previous surveys utilized to investigate similar data. The Siblings' Experience Quality Scale (Sommantico, et al., 2020) and the national survey utilized by Hodapp and colleagues (2010) were reviewed, along with findings from each survey. Items from both surveys were selected that correlated with the current body of knowledge such as demographic data, educational achievement, employment status, marital status, how siblings perceived the relationship with their sibling with a disability, and how the participants viewed their own emotional resilience.

Creating a new survey with selected items was preferred instead of using current surveys because the current surveys were more focused on parental input

and less input from siblings themselves. Additionally, few self-reported surveys from adult siblings had been conducted in the United States, where the current study was located. In creating a new survey, we were able to target it appropriately to the culture. It also combined aspects of each survey to create a slightly more holistic view of the participant's experience and to focus on specific aspects of their outcomes in their personal and professional lives.

A convenience sample was utilized via two (2) individuals posting the survey in Facebook. The individuals that posted the survey encouraged those seeing the post to take the survey and to share the survey on their own Facebook page. The survey was posted for 6 weeks and resulted in 116 responses. The participants were required to be 18 or older and have a sibling with or without a disability. Fifty-seven (57) participants self-reported that they had a sibling with a disability and forty-six (46) self-reported that they did not have a sibling with a disability.

The racial identity of participant pool is primarily White or European American at 85.3%, followed by 3.4% Black or African American, 3.4% other, 2.6% biracial, 2.6% Hawaiian or Pacific Islander. Gender identities were largely female, which made up 83.3% of the participants, followed by 9.3% identifying as male, 3.7% nonbinary, and the remaining participants identifying as an even split of 1.9% prefer not to say and 1.9% other. The participant birth year ranges from 1960-2002. Broken down into five-year age categories, three (3) participants were born between 1960 and 1965, one (1) between 1965-1970, three (3) between 1970-1975, nine (9) between 1975-1980, 11 born between 1980-1985, 12 participants born between 1985-1990, 19 between 1990-1995, 40 participants from 1995-2000, and the remaining six (6) participants from 2000-2002. The survey consent statement contained several parts including a description, the risks and benefits, confidentiality, future use, time commitment, and the right to withdraw, which was approved by the Institutional Review Board (IRB) of University of Wisconsin-Stout on March 7, 2020. Participants were provided all approved information and consent details verifying IRB approval. Participants were required to read the consent statement and agree to participation in the survey before they could access the survey.

Once they consented, participants completed survey questions that asked about their demographic information, identity, marital status, employment status, occupation information, political preferences, sibling disability status, sibling characteristics, relationship quality with sibling, and a self-report of how their relationship with their sibling has impacted them in specific areas. The survey was administered through Qualtrics. Participants needed a point of internet access, such as a smart phone or computer and a Facebook account that they accessed to take the survey. The survey was promoted through researchers' personal pages and through a sibling support group on Facebook for individuals with siblings with a disability.

A correlation design was employed because the information about the variables was coming from the unaltered natural setting of the participant. Correlational designs are appropriate when a researcher is attempting to determine to what degree the independent variable can predict the criterion (Fraenkel & Wallen, 1995, p. 289). The research does not determine any causal relationship between variables. All research questions utilized a chi-square test for independence or an ANOVA test via Stats IQ in Qualtrics.

The independent variable (IV) was whether the participant had a sibling with a disability or not (SDi), and the dependent variables we examined were educational attainment, employment status, marital status, demographic data, and how the participant was impacted by their sibling in specific traits related to emotional resiliency. The following research questions were used for this study: (1) Is there a statistically significant difference in marital status between siblings that have a sibling living with a disability and siblings that do not have a sibling with a disability? (2) Is there a statistically significant difference in educational level obtained between siblings that have a sibling living with a disability and siblings that do not have a sibling with a disability? (3) Is there a statistically significant difference in employment status between siblings who have a sibling with a disability and siblings that do not have a sibling with a disability? (4) Is there a statistically significant difference in perceived closeness based on gender of sibling participant? (5) Is there a statistically significant difference in self-perceived emotional resilience characteristics in adults with a sibling with a disability and siblings that do not have a sibling with a disability?

Discussion

This study was intended to examine potential impacts of having a sibling with a disability, particularly in intimate partner relationships, education, employment, how empathetic they view themselves, and how close adult siblings view their relationship with their sibling with a disability. This research not only benefits the subject group, but also helps identify potential areas of intervention or support that professionals may address when providing services to families. The results largely mirror what has been found throughout the preexisting literature.

1. Is there a statistically significant difference in marital status between siblings that have a sibling living with a disability and siblings that do not have a sibling with a disability?

Study results indicate no difference in marital status between adults who had a sibling with a disability and those who did not, despite previous literature suggesting there may be an impact. The results of the chi test indicated a P Value of 0.628 and an Effect Size of .146. This may be a positive result of adults feeling like their sibling with a disability is supported enough that the survey participant is able to develop their own intimate partner relationship and not feel like they are abandoning their sibling with a disability.

2. Is there a statistically significant difference in educational level obtained between siblings that have a sibling living with a disability and siblings that do not have a sibling with a disability?

A chi square test indicated a strong relationship with a P-Value of 0.00899 and an effect size of .380 for having a sibling with a disability and highest level of educational achievement by participant. Unlike existing literature, this study found that having a sibling with a disability was associated with higher levels of educational achievement when compared to their peers who did not have a sibling with a disability. This may indicate that since previous studies have been conducted, support services have increased. Another possible explanation is that siblings further their education to understand the emotional toll of having a sibling with a

disability or to find meaningful work that aligns with their characteristics of empathy, understanding and compassion.

3. Is there a statistically significant difference in employment status between siblings that have a sibling living with a disability and siblings that do not have a sibling with a disability?

The results of this study indicate no significant relationship between sibling disability status and employment status (working paid employee, working self-employed, not working temporary layoff, not working looking for work, not working retired, not working from disability, or not working other). Previous data suggested that there was a relationship between employment status and having a sibling with a disability, although it depended on disability type (Wolfe, et al., 2014). Through Qualtrics, Chi Squared test results indicated a P-Value of .708 and an Effect Size of .141, meaning no indication of correlation. The survey was released in March 2020 which means that participant current employment status could likely have been impacted by the COVID-19 pandemic (Bureau of Labor Statistics, 2020).

4. Is there a statistically significant difference in perceived closeness based on gender of sibling (without a disability)?

There was no statistically significant relationship between the gender identity of the adult sibling participant and the perceived closeness to their sibling, although previous literature has found that sisters were more likely to perceive a closer relationship with their sibling when compared to their brother (Hodapp, et al., 2010). In a chi square test run through Qualtrics, the P-Value was 0.828 and Effect Size was .193 from a sample size of 72 for these questions. It may make sense that previous literature had found that sisters perceived closer relationships because of male sibling expectations because the United States places high value on conforming to gender norms, and male gender norms are highly emotionally restrictive (Weir, 2017). No significant relationship may indicate that brothers are breaking through outdated and harmful norms to develop close relationships with their siblings.

5. Is there a statistically significant difference in self-perceived emotional resilience characteristics in adults with a sibling with a disability and siblings that do not have a sibling with a disability?

Four characteristics were identified that contributed to emotional resilience of the subject group: awareness of family dynamics, compassion, understanding of differences, and empathy. According to ANOVA results, having a sibling with a disability did not have an impact on participants awareness of family dynamics, but did have a statistically significant impact on the characteristics of compassion, understanding of differences, and empathy as shown in the table below.

Awareness of family dynamics	.817
Compassion	0.0489
Understanding of differences	0.00486
Empathy	0.0193

Table 1: ANOVA P-Value Results of Characteristics.

This aligns with existing literature supporting the concept that growing up with a sibling with a disability resulted in more caring and tolerant characteristics (Dyson, 2010). This may be related to the discrimination and oppression that individuals with disabilities face in the United States due to stigma surrounding having a disability (*Ableism 101 Part One: What is Ableism? What is Disability?*, n.d.). Participants were asked to rate how true each statement in the table below was for their sibling, with two significant relationships in "Picked on or Bullied by others" and "Has at least one good friend." These two characteristics may be related to expressing or feeling more compassion, understanding, and empathy if the adult understands how hurtful being bullied or not having friends is for a person with a disability.

Further questions prompted the participant to respond to certain questions regarding their relationship with their sibling. Significant relationships existed for 5 responses, indicating that participants who had a sibling with a disability were more likely to think their sibling would be discriminated against, will never be independent, will have trouble fitting into society, would never be accepted, and that the emotional life of their sibling with a disability will not be easy. This further supports the enhanced qualities of empathy, compassion, and understanding because of the fears they have for the success of their sibling with a disability, who may not meet the social expectations set for them.

	P Value	Effect Size	Sample Size
Picked on or Bullied by Others	0.0116	0.311	67
Has at least one good friend	0.0472	0.268	67
Shares readily with others	0.0571	0.266	65
Rather solitary, prefers to play alone	0.0858	0.245	68
Helpful if someone is hurt, upset, or feeling ill	0.0947	0.243	67
Often unhappy, depressed, or tearful	0.149	0.226	66
Nervous or Clingy in new situations, easily loses confidence	0.178	0.214	69
Often complains of headaches, stomach aches, or sickness	0.267	0.197	67
Generally liked by others	0.34	0.185	66
Considerate of other people's feelings	0.372	0.177	68
Often volunteers to help others	0.474	0.163	66
Many fears, easily scared	0.493	0.158	68
Many worries or often seems worried	0.787	0.113	67
Kind to younger children	0.854	0.1	67
Gets along better with adults than other children	0.864	0.0973	68

Table 2: Relationship between having a Sibling with a Disability and Sibling Qualities.

	P Value	Effect Size	Sample Size
I think my sibling will often be discriminated against	0.0000156	0.513	69
I think that my sibling will never truly be autonomous	0.000111	0.475	70
I think my sibling will have trouble fitting into society	0.000178	0.463	71
I think my sibling can never be accepted	0.00374	0.4	71
I think that the emotional life of my sibling outside of the family will not be easy	0.00563	0.393	70
I believe my parents always loved my sibling more than me	0.0572	0.328	70
I believe my parents have always admired my sibling more than me	0.0741	0.317	71
I believe my parents didn't take care of my problems as much as those of my sibling	0.169	0.288	70
Me and my sibling fight	0.169	0.288	70
My parents have often treated me unfairly compared to my sibling	0.197	0.279	71
I laugh and joke with my sibling about so many things	0.275	0.265	70
I often feel that I cannot be wrong	0.367	0.25	70
I feel close to my sibling	0.376	0.245	72

Table 3: Relationship between having a Sibling with a Disability and Sibling Relationship Qualities.

Limitations

Various limitations exist within this study. This study utilized a convenience sample; therefore, even though there were some statistically significant findings, it is not assumed the findings can be extrapolated to all siblings that have a sibling living with a disability unless a more valid random sample is utilized. Furthermore, participants were not required to answer each survey question which led to various sample sizes for each question. Although missing data is assumed to be random, it is recognized that the question design was not suitable for many cell phone users so missing data may not be as random as assumed. It is unclear how many survey participants completed the study via their cell phones. Despite the preponderance of participants being European American, the racial identity in this sample reflects the racial demographic of the state in which the study was undertaken. However, it cannot be guaranteed that all survey participants reside in the state in which

the study originated. Across the United States, the demographic breakdown from 2010 indicates that 76.3% of the population identified as white (QuickFacts, 2010). Therefore, results may not accurately reflect the experiences of minority populations in the United States.

Conclusion

This study investigated how adults who had a sibling with a disability differed to a comparison group of adults with a sibling who did not have a disability. Overall, the adults surveyed have experienced consequences from having a sibling with a disability. Adults in the subject group may benefit from support in their education as well as emotional support for the worries they have regarding their sibling. The survey results are largely confirmatory and exploratory, indicating that more specific studies to determine emotional toll on the subject group would be beneficial. Future studies should utilize a larger number of participants and stronger design models to decrease limitations.

In conclusion, the impact of having a sibling with a disability is complex and long-lasting. The existing relationships in educational achievement and emotional resilience should be supported; interventions for the adult siblings could include support groups for validation of shared experiences or concerns and education on community resources for support. In addition, adult siblings may benefit from their own mental health services to work through their relationships and life decisions. Future research avenues might focus on emotional wellbeing of the subject group or their individual perception of growing up with a sibling with a disability.

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The Switch: Code-Switching and its Effects on African Americans in America

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The Switch: Code-Switching and Its Effects on African Americans in America

Code-switching is the act of alternating between two or more languages or varieties of languages in conversation in order to assimilate in certain environments and properly relate to the people present. We alternate our vernacular when speaking to supervisors, bosses, and other professionals. We change our tone and demeanor when addressing our close friends and significant others. In new and strange environments, we adjust our language; it may almost seem natural and innate, but its utilization and impact are certainly cultural and historical. It is a function to express and navigate through different social pressures, ideologies, and identities.

This diversification of oneself when present in different scenarios stems from a place of fear, survival instinct, and self-preservation when practiced amongst African Americans. What happens when adaptation techniques are rooted and tied to histories of discrimination, prejudice, and bias? How does one learn to deal with the societal and social pressures that lead to behaving in certain ways, and that is reflected in language decisions related to code-switching? In some circumstances, not engaging in code-switching can have significant ramifications on one's reputation. The tug of war between what seems like two opposing dialects, African American Vernacular and Standard English, is the focus of this study. The stigma centered around AAVE, formerly called Black English Vernacular and commonly called Ebonics outside of the academic community, has been the center of major social debate arguing its validity and contrast to Standard English, which many have regarded as synonymous to "talking white."

Many African Americans intuitively understand how their behavior and language may change in different circumstances in order to avoid inaccurate preconceptions about who they are. This pertains to how they act and react in black spaces, white spaces, as well as professional and personal spaces. According to anthropologist Avigdor Edminster, the problem with this racial patriarchal ideology is that it is founded in material inequalities that seek to maintain discrimination in wealth, power, and prestige as well as to demean black cultural forms, including language. Significant outside social and cultural pressures on African Americans regarding how members should behave can cause significant harm. As a result, one should question the values that these pressures might represent and whether they come from a place of discrimination or racism.

When someone is asked to behave in a way that doesn't feel natural to them by cultural pressures, that harmful belief can become a habit of behavior that is

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difficult to deal with psychologically. It affects social status and prestige and is interwoven in our educational system.

This study's goal is to understand how prevalent these biases and stereotypes surrounding AAVE can be, and how these shape the social, political, and educational views of African Americans inter-racially and intra-racially. It also looks at how this reality that many African Americans face dictates how they navigate the society around them, and identifies the ways code-switching parallels itself to material inequalities that can cause physical, economical, and emotional harm. Beyond this, understanding how the constant cultural pressure to behave in ways that one does not agree with can cause a strong cognitive dissonance that can be extremely stressful. It molds and shapes the minds of our youth, contorts the vision of people of color to believe themselves to be less than and leaves lasting damages on the psyche.

Code-Switching Defined

Many interviewees described code-switching for themselves along the lines of "changing the way one acts in order to blend in." Scholar Vershawn Ashanti Young defines "code-switching" as: "The prevailing definition, the one most educators, accept, and the one I'm against, that advocates language substitution, the linguistic translation of Spanglish or AAE into standard English." Like Young, many of those interviewed regarded code-switching more as a survival tactic and reconstruction of their language and behavior in order to adhere to a certain prestige and archetype, one that highlighted whiteness as correctness.

Young synthesizes (sic) that code-switching has a rich history of racist ideologies and segregationist foundation. The idea that code-switching has been modeled ideally as a "transition" he believes was designed as an alienation tactic to make Black folks assimilate to European standards of behavior. Interviewees voiced throughout this study, the struggle to move between two worlds that were opposite in culture and expectation, whether that be their home life and school, their personal life or professional life. The fight to keep each separate and distinct was difficult and trying. It's important to understand how code-switching has evolved and taken on multiple forms and how standard English became the language to uphold and judge all others by.

Code-Switching in our Education and Institutions

Communication skills are one of the single most important learning objectives across a multitude of learning institutions and universities. While introducing basic communication practices in the classroom like an introductory course to public speaking, is essential, it can prove to be a challenge to Black students whose language is deeply rooted and centered around African American Vernacular English. Black students, however, can recognize the complex social contexts that present themselves and can effectively code-switch by understanding context clues and using bi-dialectical behavior. However, these skills can have a large influence on academic performance, as well as communication in other social situations.

Code-switching is not random nor is it meaningless; its role and function are used as a linguistic tool that can become a sign for its participants to be aware of

alternative communicative conventions. Black English historically has been portrayed and deemed as inferior, because of its deviation from the mainstream "American English." Black English speakers have experienced the brunt of this rejection, so as a method of social survival, African Americans as Green found, engaged in an almost "unconscious and reflexive" practice of code-switching; in order to avoid stigma and negative responses.

America has standardized its English, defined mostly by the dominant group who speaks it. It is spoken by those with power, and in power. If another dialect is spoken that does not align with Standard American English, it is ranked lower within the dominant cultural context.

A prevailing phenomenon that has become pervasive in many black communities is the slow immigration of inner-city students to suburban schools. While parents are hesitant to take their children out of the neighborhoods and school districts that they call home and know to be familiar, they recognize that the proper resources needed for a proper education all reside in the suburbs. This transition can be difficult. Besides the demoralizing messages that most black students are exposed to in regard to their home and school, these students are now disconnected from the environment that has made them feel safe. They are now surrounded by peers who are very different from their previous friends, and whose understanding of their vernacular and language is slim to none, leading them to be outcasted and mislabeled.

With this influx of children looking for better education, most times teachers are ill-prepared to teach these new students and they believe falsely that their language differences were due to them having minimal skills and abilities. This was because teachers were trained in the preparation to teach predominantly if not all white students in a middle-class setting, which made the integration of these students even more difficult.

A large corpus of literature documenting the social and educational experiences of African American adolescents usually focuses on economic despair, poverty, poor health, crime, violence, and inadequate education. Middle-class status can serve as a protective mechanism against poverty, dilapidated housing, inferior education, and malnutrition, yet it does not shield young people from the manacles of racism and discrimination (hooks, 2000).

So, while some African American youngsters may have advantages based on their social class, they may still endure forms of racial oppression as well as inter- and intra-racial strife. An example lies with a case study involving an African American student called Tiffany. Although Tiffany did not worry about food, shelter, or safety, she did experience ostracism from some of her peers. For instance, her African American peers isolated Tiffany because of their perceptions of her social class standing and concerns that she was "acting White," given her decision to excel academically. Her White peers could only accept stereotyped constructions of African Americans as criminals involved in the drug trade, as well as an array of other stereotypes. The varying forms of ridicule she experienced from both her African American and Caucasian peers left her feeling dejected and alienated.

Code-Switching and the Situational Negotiation of Identity

Public and private spaces shape and mold the behavior of African Americans consistently, and it is important to understand how these situations relate to their blackness when they are placed in different contexts: questioning how race is lived, learned, negotiated, spoken about, transformed and resisted and how these inequalities affect the educational and psychological well-being of its black people

Racial, gender, cultural and structural constraints leave an immense amount of impact on Black students and their academic achievement. Beliefs and media images that portray and push white privilege and its supremacist agendas onto black people and people of color, lead them to a crossroads of dealing with "dual citizenship." Straining to retain the "citizenship" of the black community while in the same breath, fighting to keep afloat and seek acceptance in the hegemonic white society.

In terms of "acting white" and "acting black" it is interesting how white individuals are still able to maintain white privilege. What Akom describes as disturbing is how it continues to be regarded as the "right" identity, something to aspire to, while black culture and identity are "socially exoticized," and characterized at times through atypical negative behaviors, affecting how blacks view themselves and others in their communities.

Beyond just social implications, the constant need to conform in specific environments because of one's race to avoid social pressure can affect their psychological wellbeing. Understanding the importance of stigma management which manifests itself in the form of buffering, bonding, bridging, and code-switching. Buffering the insults and marginalization that is experienced, bonding with others who share their experience and building strength and resilience, bridging their different worlds (private and public), as well as changing their speech patterns when in certain social situations to avoid stigmatization (code-switching).

Code-Switching and Mental Health

A growing amount of research has highlighted the effects of racism on mental health. One such being the stress of discrimination, which is directly connected to the stigma of inferiority that saturates the minds of black people affecting some to the point that their mental health is in jeopardy.

Negative attitudes and beliefs led to this ideology that blacks were somehow inferior, and whites were superior and bled its way into neighborhoods through the legal segregation of blacks and whites, promoting again this idea that the superior should not mingle nor fraternize with those that were believed to be less than, putting minorities in neighborhoods that were underfunded and unkempt, leading to poor school resources, and lack of job opportunities.

Discrimination experienced by blacks on a multitude of levels and in broad social contexts can lead to an immense amount of distress. When studied in a controlled lab setting, acts of discrimination and prejudice led to physical reactions, some of them being cardiovascular reactions and high blood pressure. With more studies being conducted, it revealed the same recurring pattern of discrimination caused psychological distress.

Besides discrimination playing a key role in the mental health of African

Americans, racism and its attacks on the ego and identity of the victim can cause significant damage. Negative images of blacks in the media are pervasive, showing subtle signs of racist stereotypes, symbols, and images that are present in the English language. These categorical beliefs of the biological and cultural inferiority of a marginalized group of people can deteriorate the self-worth of some of the members of this group, undermining their purpose of their existence. Evidence shows that the internalization of these cultural stereotypes creates expectations and anxiety that can directly affect social and psychological functioning, leading to a recurring pattern of poor academic performance.

Socially, economically, professionally, and academically, students of color are affected by rampant stereotypes, microaggressions, and racism in all its forms. Code-switching merged as not just a way to differentiate one's actions in personal and professional settings, but as a protective measure for African Americans against these threats that wreak havoc on their psychological wellbeing. Research shows how the history of language and representation of AAVE and Standard English can construct environments that are unwelcoming and uninviting. As Black students and adults move throughout a society that prides whiteness as correct and upright, it leaves space for an inferiority complex that can leave lasting damages on communities of color.

Methods

Participants

This study aimed to understand the dynamics of power and prestige at play when African Americans code-switch in personal and public environments, as well as analyze what role this has on their self-image and mental health. Twenty potential participants were contacted via a Facebook listing and invited to complete an interview that would be centered around their academic, professional, and social experiences as an African American. Ten of these participants were younger adults ages 18 through 30, most of them were native-born Americans or immigrants from parts of West Africa. The remaining 10 participants were older adults ages 30-60, 5 of them being African immigrants specifically. To fully understand how code-switching manifests itself in different contexts and among different types of black people, it was important to have a diverse set of backgrounds, ideologies, sexualities, and ethnicities to grasp the scope of code-switching's influence and find the overlap between its use intergenerationally.

Materials and Procedures

First participants reached out via Facebook to express interest, followed by setting up a time and place in which they would feel most comfortable speaking their truth without outside distractions. Most interviews took place at the participant's home or a private library room. Participants were then given a consent form that highlighted the risks and benefits of the study as well as the purpose and where it will be seen and possibly published. After agreeing to all the terms, participants were then asked a series of 15 questions centered around the topic of education, culture,

race, self-esteem, and code-switching. They were free to pass on certain questions, however all participants answered all 15 questions asked of them, as well as adding in their anecdotes that further elaborated on their experiences. The interview lasted between 1 hour to 1 hour and 30 minutes. Interviews were recorded on the primary investigator's phone using a recording app, and additional notes were taken during the interview. The recorded interviews were later transcribed and reviewed for further understanding and analytical purposes. Following transcription, recordings were deleted.

Discussion

During this study, informants were more than open and comfortable sharing their stories, plights, and experiences navigating the world as African Americans and utilizing code-switching as a coping mechanism and tool in various situations and scenarios. "I definitely change up the way I talk all the time. Code-switching to me is basically changing your language when you're in different situations where it's appropriate or pertinent that you sound a certain way." Leslie, a 24-year-old grad student recounts her definition of code-switching confidently, adding, "I for sure sound different when I'm in a room full of my friends versus in a room full of... strangers, or when I'm around certain people." The phrase "certain people" had a specific unnamable connotation behind it; [more so] than I had first expected, as many of the other informants also echoed Leslie's sentiments when sharing their definitions of code-switching.

"Yeah, changing your language patterns for sure, I'm not going to walk into a room of people I don't know saying 'yo what's good fam?' I'm not trying to be looked at as different" Many of the young African American informants hinted at their discomfort speaking in African American Vernacular around said "people". When asked to elaborate, they universally said "white individuals." However, this push for them to be explicit about whom they spoke of took some questioning as many still felt uncomfortable fully saying "White people." This seems to fall into another reoccurring theme of comfort and self-sacrifice to make the dominant group feel more at ease with something that seems very opposite of them: to be comfortable with their blackness. Often the realization that they are the only minority member in a large population of mostly white individuals can be daunting and an unexplainable need to escape from that space seems to lead many into avoiding the obvious elephant in the room: race. It seemed like they fought to not cause friction since most times these "certain people" hold the opportunities they need to elevate themselves in society. Often, racial issues seem to be spoon-fed lightly into the mouths of those who don't understand, and black youth are cognizant of this dynamic.

Of course, the feeling of being on guard in situations where you are the minority is a constant realization for many young black Americans. They hide their common colloquialisms under a shroud of being more "presentable" or "intelligent." However, these same feelings aren't shared with older generations interviewed, especially those from immigrant backgrounds. When asked about her definition of code-switching, 50-year-old mother and immigrant Jassah, furrowed her brows in confusion. "The stuff they do on computers?" Like many other informants in her

category, Jassah who was born and raised in West-Africa, grew up with a different culture and dynamic that didn't champion a certain vernacular as superior. When asked about her comfort level speaking openly even with a pronounced accent she laughed. "I'm proud of my heritage and where I come from, when people hear my accent I'm more than happy to tell them that yes, I am an immigrant, and I'm proud of it." Many of the following informants expressed the same attitudes. Being that young African Americans and youth are raised in America conscious of their presentation to others and the steady stream of microaggressions that come from every corner, they equip themselves mentally and emotionally to deal with these things as they present themselves.

When it came to education and the many institutions that govern and make up the U.S, many of the interviewees voiced how code-switching played into their employment, their classes, and what they learned in school. "So, I'm from the ghetto, right? But I went to this really boujie school in the suburbs" Malia an 18-year-old incoming freshman relays her experiences working between somewhat opposing dynamics, her predominantly white middle school, and her all-black neighborhood. "I was consistently told that I had to 'talk properly' and for the longest time I was like, 'I am talking properly, what do you mean?' Eventually I understood, I had to talk how the white kids talked and honestly that never changed as I grew up in school, but it was hard going back home and having to switch that off so that I wouldn't seem, boujie or stuck up or too good." Malia shakes her head at the memory of her consistent back and forth between two almost opposite worlds, a dilemma many young African Americans find themselves in. Malia understood the societal pressure to fit in and not subscribe to a stereotype that was created for many of her black peers to fall into. "Even in my freshman orientation, it was a struggle. I was the only black girl there, and I felt like, expectations had already been set." She recounts the urge to not speak "normally" which would be categorized as African American Vernacular English, but instead, she talked "white", utilizing Standard English. She confided that she felt that this was the only way that she could be seen, where her voice would hold weight and validity. This theme was constantly reappearing in many of the stories told by informants. Standard English was the standard to which everything was measured, often being synonymous with "intelligence," "grace," "poise." all terms used frequently by the informants in its descriptions. However, quite the opposite was applied for AAVE.

"No disrespect, but if I walked into my work sounding like a hoodrat, I would lose my job" Darnell, a law student currently interning at a prestigious law office, shrugged at his statement. "I'm just being honest, there's just a certain standard, and if I break that..." he failed to continue finishing his sentence, but the realization that standard English holds a certain amount of prestige and power is important to note as the other informants added on extensively on this point. The need to "make it" and the strategies used to achieve social capital and worth in a society that had already rejected who they were as individuals since birth was a lot of pressure. "I don't want to be looked at as scary, or stupid, or incoherent; I already have dreads, so people already side-eye me when I walk into a room, but once I talk everyone seems to take a deep breath, could you imagine though, how people would react if I walked in sounding like Tupac or something?" Darnell laughs but the stereotypes that sit heavy

on the backs of African Americans are no joking matter. The pressure to make others around you comfortable often at the expense of your discomfort is often a sacrifice that has to be made.

"I feel like, you're taught in school that sounding one way is really ignorant, and then when you go home, and you listen to your family and friends, there's this internal struggle because I'm thinkin', 'well my mom is like, the smartest person I know.'" Jessie shares how much of an emotional toll it is to have your culture and language devalued as something not worthy or valid. "It sucks, because it's like I'm adding on layers and layers of makeup and even when I go home to wipe it off, I still can't recognize who I see when I look in the mirror, does that even make any sense?" She laughs, but the discomfort is still evident in her face even after her statement.

The negative connotations often ascribed to AAVE plays a large role in how our African American informants saw themselves and each other. "I mean, I love slang, everyone uses it, it's popular now for everyone to have that 'black aesthetic'" Informant Jallisa added her take on her views of AAVE, and its perception societally. As the interviews continued, there was a common thread amongst the informants about where their views and perceptions of the language they use so frequently came from and why most times they were overwhelmingly negative. "I mean it's all over T.V" Jason, 23, a recent college grad says this matter-of-factly: "When you look at common movies that portray black actors, there's always the black sidekick, who isn't anything but comedic relief and at times extra boisterous and ignorant, and more times than not, they're talking stereotypically black; it's almost like the spectacle of blackface all over again, but our own people are the ones doing it." Stereotypes are prevalent and consistent within many cultures and grossly misrepresent and paint entire communities with one broad stroke. However, the informants confided that the repercussions of the stereotypes on the black community can be a lot more disastrous for their physical and mental wellbeing and goes farther than just a joke that was in bad taste. "People around the world see these stereotypes and quickly internalize them, black and white folks," Jason continued. "And for the few white people who have never seen or actually interacted with a black person before, they take those depictions literally." Leslie also adds on to this sentiment by saying, "When we are shown to be so loud, boisterous, dangerous and threatening, that transfers to how our employers see us, people on the street see us, how police see us, and if you can't quickly code-switch or communicate, then that could easily be a life or death situation and the realization of that is kind of saturated in everything, it makes you lose a bit of hope."

When it came to identity and its importance to not just youth but the older generation of informants, there was a clear commonality on where they stood. "I love being black, I think we're so dope." Blessing smiles. "We're resilient and creative, and there's this unsaid unity amongst us that I don't think the majority of people have." This solidarity that is prevalent in the black community is backed by the rest of the informants. "When I walk into a space that I consider to be unwelcoming or predominantly white, and I spot a black person it's like a weight is lifted. I'm like 'I see you brother, I see you.'" This almost universal respect for one another is one of the many things the informants draw on for their strength and resilience when it pertains to living and navigating American society. When it comes to how their language

related to their identity, the informants all seemed to make AAVE an extension of themselves. "It's really cool how we have our own way of communicating and using words and phrases to mean something that only our community understands." Jallissa who is also the daughter of African immigrants gushes about how she loves speaking to her other African friends, how conversation flows so easily, as bits and pieces of their dialect manifest themselves in every sentence. "It's almost like we're an exclusive club, our phrases are goofy and may seem bizarre to other people, but it makes sense to us, and being in America where everyone has to sound the same, it's cool to feel a little different." This was also a common theme, as informants one after the other expressed how their language bonded them. Even in the midst of fear, social strain, and racist ideologies, they found ways to make their language staple (sic) to their identity and community.

Conclusion

Code-switching has universal importance to all human beings on this planet. Its usefulness in navigating new spaces and retaining our social safety is something most people can relate to. It is used as a means of academic prosperity, as well as professional and social gain. However, as African Americans consistently navigate different spaces within American culture in which they are minorities, or even at times the majority, it becomes their refuge and safety against the never-ending parade of microaggressions and prejudice, and while it can be a protective behavior, it can have significant psychological costs. It is also what keeps them bonded with family friends and physically safe from those who may regard their demeanor as threatening. However, as they navigate the world, both old and young, we need to understand the power dynamics that are on a never-ending loop in our society and how it affects us and those around us as we yearn to be better friends, parents, and educators.

Future research would do even better to look at the intersecting identities of gender, as well as an incorporation of other minority groups and an in-depth look at their comfortability with each other. Would code-switching still happen as much and with the same motivation of protection and avoidance against racial profiling and stereotype threat?

The next step, as teachers, educators, administrators and those functioning in high positions within our institutions, is to apply this knowledge to dismantle white supremacist history and its agendas that pride one group over the other. Utilizing this can help us create a more conducive and inviting environment for everyone.

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Appendix A

Interview Questions Given to Participants:

1. How would you personally define code-switching?
2. Do you believe code-switching to be a positive or negative thing, why?
3. Why do you code-switch?
4. Where and when do you code-switch?
5. What environments do you think code-switching is most necessary?
6. What environments do you think code-switching is least necessary?
7. Do you code-switch amongst family and friends?
8. Do you code-switch in academic institutions, why or why not?
9. Do you code-switch in professional institutions, why or why not?
10. Is it difficult for you to code-switch, or is it second nature?
11. What does it mean to talk "Black" or "White"? What stereotypes are associated with this?
12. What's the hardest thing about code-switching?
13. How do you think code-switching affects your community? And why do you think that is?
14. What environments do you feel most comfortable in and why?
15. What environments do you feel least comfortable in and why?

Time-Series Analysis of Wave Elections

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Abstract

A wave election is commonly defined as an election in which one party makes major gains. However, there is little consensus on what constitutes such gains. A wave election could also be thought of as an election in which the electorate voted in a fundamentally different way than preceding elections. In this study, we create a quantitative definition using ideas found in time-series analysis. We apply segmentation algorithms to election data to find the moments when these fundamental shifts in the electoral mood occur and build an objective definition of a wave election by comparing these results with past accepted wave election occurrences.

Introduction

What is a wave election? This question is what our study seeks to answer. The term "Wave Election" has risen to popularity [1] in recent years. The term also increases in use around the time of elections. Figure 1 shows the Google Trends report for the term "Wave Election." Not only does its usage spike around the time of the election, but these spikes have also been increasing [1] in magnitude in recent years. This increased usage drives a need for a consistent definition to avoid misunderstanding and misuse of the term.

According to Oldham and Smith [2], people use wave elections as a measure of political change. This is because they often correspond with dissatisfaction [3] among the general populous for a party. Thus, a wave can be considered a sign of a fundamental change in the mood of the voting populous.

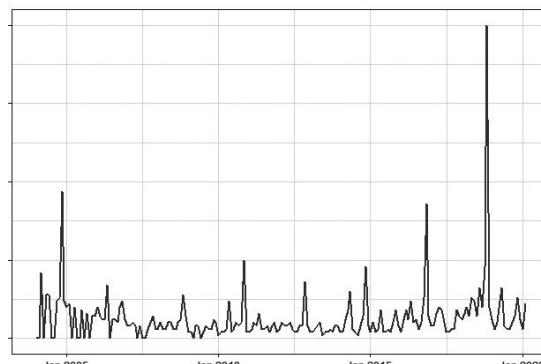


Figure 1: Google Trends[1] report for the search term "Wave election" 2004 to present.

¹ James is a McNair Scholar and a member of the Honors College.

Studies have used a variety of methods [4,5] to forecast election results, particularly regarding wave elections. Abramowitz [5,6,7] uses a model that places its foundations in the generic ballot, a poll question asking people what party they plan on voting for. His model uses the information gained from the generic ballot and combines it with factors like approval ratings to estimate the number of seats that will change hands during the election.

Studies [4,5,6,7,8,9,10,11] also look at what factors cause a wave election, and one of these factors is the public opinion of the president. Their findings show that, in general, elections go against the president's party but that this can be mitigated or exacerbated by the president's approval rating and a variety of other factors.

However, the importance people place on the idea of a wave election has issues as it lacks [12] a widely accepted definition. This lack of a cohesive definition leaves room for politicians to claim a wave where one does not exist [12], which allows them to claim political capital. For example, consider an election during a contentious period. During periods like these, there may be an argument as to whether or not an election is a wave. One party might claim a wave happened to build public support for their policies, but another party may claim a wave did not happen to limit the apparent scope of the swing of people's support. An objective and widely accepted definition would prevent either side from applying a political spin and allow an objective line to be drawn on whether an election is a wave.

Oldham and Smith [2] examine this problem by defining wave elections to be the top 20% of elections regarding seats lost by the president's party in the House of Representatives, in the Senate, in gubernatorial elections, and in state legislatures. They also look at what they call a "Tsunami Election" which is when waves happen in three or more election groups. These occurred in the following years: 1920, 1922, 1930, 1932, 1938, 1966, and 2010. However, their definition has issues as their choice of percentage has no basis in the data and instead arbitrarily [2] mirrors stock market analysis.

Other groups [3,12,13] look at what a wave is and which elections are waves, and each has referenced a definition by Stuart Rothenberg, which is the most commonly used definition we have found. His definition [14] is that any election that sees a swing of 20 or more seats in the House is a wave. The definition suffers the problem that if every such election is a wave, then 26 waves happened between the years of 1918 and 2016, which means that roughly half of the elections according to this definition [2] are waves. This leads to questions such as: If they are that common, are they even a significant occurrence? Can a supposedly fundamental change happen so frequently? In this article, we assume that such a fundamental change cannot happen in more than half of elections.

In addition to these more academic investigations of wave elections, several news and information distribution organizations like the Washington Examiner and the National Journal [3,12,13,15] have interesting work on examining the idea of a wave election. These groups make interesting points on the rarity (or lack thereof) and the increasing prevalence of the wave election as a political concept. Zito [15] brings up a good point on the frequency with which they were claimed to have happened in the period from 2006 to 2014. Zito also brings up the fact that not every election that flips control in the House is necessarily a wave, it may instead establish an equilibrium.

In this paper, we create a rigorous new definition of a wave election. We use ideas from time-series analysis and find an objective definition made free from bias that does not over-establish the frequency of wave elections.

Methodology

This study uses a mixture of election data, focusing on the percentage of the total vote counts in the popular vote for the Republican party in the elections for the House of Representatives and the Senate. We chose the vote for the Republican party because it is often used in political science. We are using the popular vote to minimize [2] the influence of redistricting, gerrymandering, and Senate election cycles on the results. For example, consider two election years in which the vote was identical but there was redistricting between them. If because of this one seat flips in 20 states, according to the Rothenberg definition this would be a wave, but the mood of the electorate has not changed. In addition, voting percentages are a more direct representation of the voting public's mood. Also, we are using the percentage of the popular vote to account for the fact that the number of people voting changes every election. For simplicity, we ignore special elections and other odd-year elections. The exact data sets used are the percentage of the popular vote won by the Republican Party in the House and Senate elections since 1914. We chose this year because it is the election after the 17th amendment was passed [16], and thus the first time the entire Senate was popularly elected.

Since the data is chronologically ordered, time-series analysis is a natural choice for this analysis. A time-series is a collection of chronologically ordered data points. A segmentation algorithm [17] is a systematic breakdown of a time-series into discrete, contiguous, and fundamentally different pieces called segments. The majority of segmentation algorithms are in one of three categories [17]: Sliding Windows, Top-Down, and Bottom-Up. In this case, our data is the percentage of the popular vote won by the Republican party. A segment is a collection of one or more of these data points. These segments can be viewed as a form of status quo or as a representation of the mood of the voting populous.

The first of the potential algorithms is the Bottom-Up algorithm. Our explanation of this algorithm and other algorithms follows [17] from the work seen in Keogh. This algorithm begins by treating each election as a segment. The algorithm then takes all of the adjacent segments and looks at which pair, if merged into a single segment, would have the lowest RMS (root mean squared) deviation. This measure is used because it is a standard way to compare error and deviation and will be used by all of the algorithms we discuss. Root mean squared deviation is calculated by taking the difference between the average voting percentage of the segment and each election year during said segment. We then take the average of these values for all years within the segment. Then, to make sure that our deviation is still using the same units as our data, we take the square root of our average. This new value is our RMS deviation. If this deviation is below some predefined threshold, then that merge is performed. This process is then repeated until none of the possible mergers are below the deviation threshold. After this process is complete, we have a segmented time-series. This algorithm has the advantage of prioritizing what to merge based purely on how close the data points are. One of the problems with

this algorithm is its complexity and slow speed compared to the Sliding Windows algorithm.

Another potential algorithm is the Sliding Windows [17] algorithm. This algorithm starts by treating each data point as a segment. It starts with the first segment chronologically and performs a hypothetical merge with the next segment chronologically. If the hypothetical segment's RMS deviation is below some specified threshold, then it performs the merge. This is continued until such a merge would cause the segment to go above the specified deviation threshold. If it is above the deviation threshold, we repeat the process starting with the next segment. One of the problems with this approach is that it merges the first valid pair of segments chronologically instead of merging the pair of adjacent segments that is cheapest to merge when looking at minimizing RMS deviation. Another issue comes from an idea proposed by Zito [15], which is that the public tends to vote in ways that create a balance in power. Specifically, significant waves in recent memory have been followed by elections that according to this model and less strict definitions, would be considered waves [15] rather than be seen as part of the process of finding a new equilibrium.

The third algorithm is the Top-Down [17] algorithm. This algorithm starts by having all of the data points in one segment. It then looks at the RMS deviation of that segment and sees if it is above some predefined threshold. If it is, it looks to see at which point it could split the segment into two segments that decrease the deviation by the most. It then splits it at that point and runs the algorithm on the new segments. This is repeated until every segment is below the error threshold. The main problem with this algorithm simply stems from the fact that it begins with all elections as a single segment. This algorithm was not chosen because of its starting point; we assume that it is better to start individual elections as segments combined with similar elections than to assume that all elections are similar and splitting the segment if they are sufficiently different.

In this study, we will use the Bottom-Up algorithm because of its few drawbacks for our purpose. For small data sets like ours, the loss in performance is unimportant.

There is an inverse relationship between the number of segments and the chosen threshold. This is because as we increase the threshold, it becomes easier to merge segments, and as we decrease the threshold, it becomes more difficult. This is important as we want our definition to include all of the consensus waves. However, we do not want every election to be considered a wave. So, we want to minimize the total number of waves found by our definition. To do this, we will find the lowest threshold that causes the list of waves found by the algorithm to include all the consensus waves. Among our sources, there were three waves [2, 3, 13, 14] that were consistently mentioned. These three elections were 1966, 1994, & 2010. These are our consensus waves. Their historic significance is that they occurred during the Vietnam war, were the start of Newt Gingrich's "Contract with America," and were the start of the Tea Party movement, respectively.

In summary, we are therefore tasked with finding a deviation threshold that balances having too many wave elections with finding all of our consensus waves. So, any threshold that we accept for our definition must find these three years to be wave

elections but can consider no more than half of the elections during the time period to be waves.

Results

The precise relationship between threshold and segments for our data is demonstrated in Figures 2 & 3. These charts show that, given similar thresholds, the Senate will have more waves than the House. Stated another way, that means that the Senate data tend to deviate more. This is likely due to just how few senators are up for election every 2 years combined with the fact that the senators up for election may be heavily skewed for one party or another.

Now we plug in thresholds until we narrow in on which one finds the largest

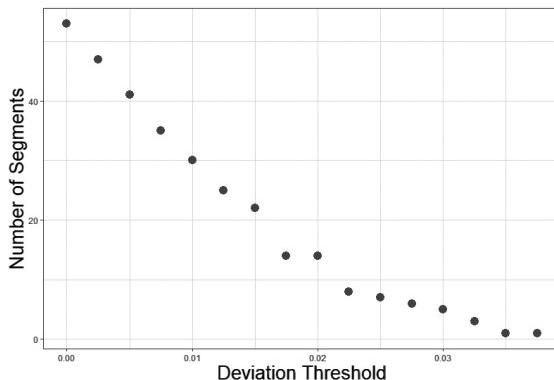


Figure 2: The number of segments at various thresholds in the House.

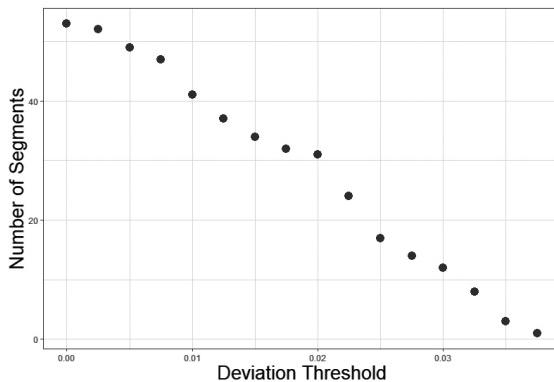


Figure 3: The number of segments at various thresholds in the Senate.

threshold that finds all of our consensus waves. First, we will look at the House data, and then we will look at the Senate. We found that a threshold of 1.7% met our criteria when applied to the House data and provided us with Figure 4. This threshold has 17 segments which means that according to our model, there have been 16 waves since 1914 (the 1914 segment is not considered a wave because it is the start of the data set and thus always starts a segment). Interestingly, this picks out 2018 as a wave.

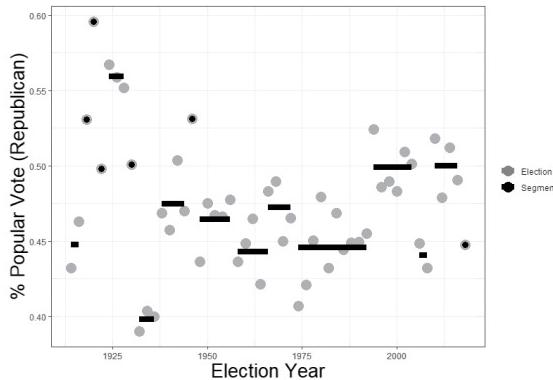


Figure 4: The election data for the House after the Bottom-Up algorithm is used with a threshold of 1.7%.

This is the largest threshold that would find all of our consensus waves. For example, if it was set to 2%, we would succeed in reducing the number of waves to 13 (14 segments). However, it excludes the 1966 election as its segment, and others are merged into the segment started by the 1948 election. This hypothetical scenario is pictured in Figure 5.

When this same threshold was applied to the Senate data, we ran into a

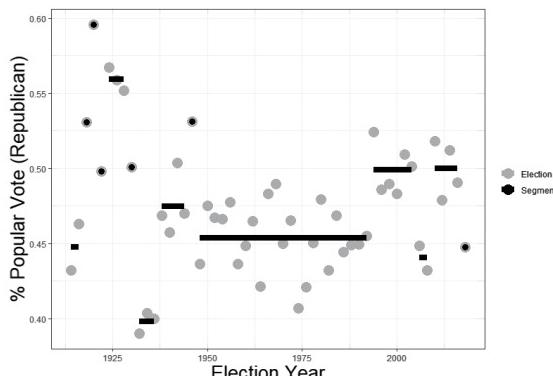


Figure 5: The election data for the House after the Bottom-Up algorithm is used with a threshold of 2%.

problem. The threshold caused the Senate data to have 32 segments, pictured in Figure 6. This leads to considering more than half of the elections during the period waves, which runs up against the assumption stated earlier - that wave elections should be a rare and significant occurrence. Thus, we will not be able to use the same definition for the House and Senate.

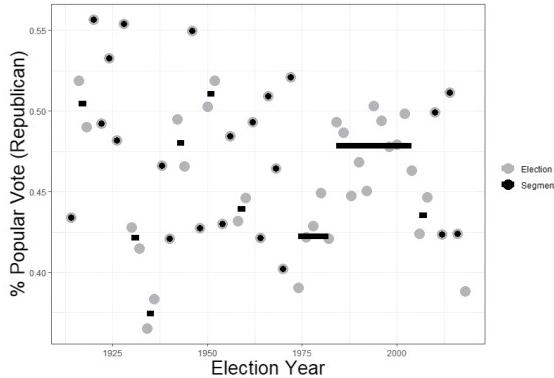


Figure 6: The election data for the Senate after the Bottom-Up algorithm is used with a threshold of 1.7%.

We then applied the methodology used to find a threshold for the House on the data from the Senate. This resulted in a threshold of 2%, pictured in Figure 7. When applied to this data set, that threshold gives us 31 segments which, like the above threshold, runs into the same problems as the Rothenberg definition, which had a requirement that 20 seats must be gained in the House for an election to be a wave. Thus, like the above threshold, this implies that waves are less significant than this study assumes and is not a usable threshold for a definition given our assumptions. Thus, we will not be able to make a definition that includes the Senate. However, further examining the data does provide interesting results.

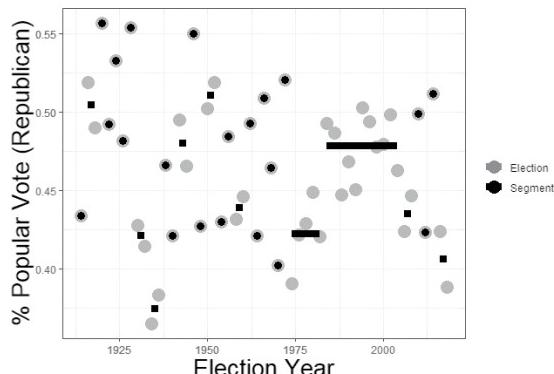


Figure 7: The election data for the Senate after the Bottom-Up algorithm is used with a threshold of 2%.

We then sought to instead find a threshold that matches the 16 waves found by the threshold that met our criteria for the House. We found that a threshold of 2.5% gives a matching number of waves when used on the Senate data. This is pictured in Figure 8. Some interesting things to note are the period of stability from 1984 to 2014 and the fact that 2016 is the most recent wave in memory according to this threshold.

When we compare our method's results to Ballotpedia's [2], we catch every election that they consider a Tsunami election. We also catch every election that

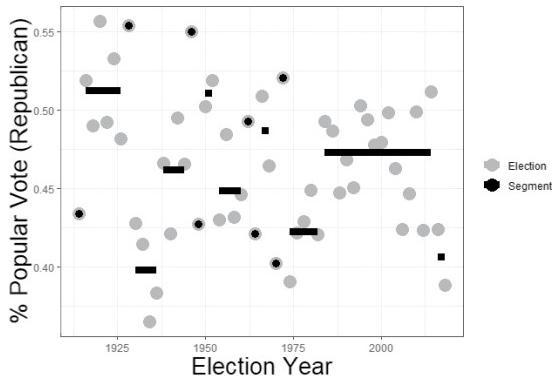


Figure 8: The election data for the Senate after the Bottom-Up algorithm is used with a threshold of 2.5%. they consider a wave in the House, though we consider several other elections waves as they were notable for their time. For example, we consider 2006 as a wave, while they do not. This is because 2006 had a low seat loss compared to other waves but had a notable swing in the percentage of the vote that they had. In addition, it came after a period of relative stability; therefore, our methodology deemed it notable enough to be a wave.

Conclusion and Current/Future Work

Our definition of a wave election is any election that creates a new segment when using a threshold of 1.7% on the House data, other than the first: 1918, 1920, 1922, 1924, 1930, 1932, 1938, 1946, 1948, 1958, 1966, 1974, 1994, 2006, 2010, & 2018.

Due to our desire to create a standardized and objective definition of a wave election, we cannot create a threshold using this method which meets our desired requirements. In the future, we will begin looking at contacting those with more experience in history and political science to work on a methodology for finding a threshold that would work better for the Senate data.

In the future, we will examine something that this study had limited time to examine - singleton segments and how they relate to the surrounding data. A singleton segment is any segment that consists of only a single election. These are represented in Figures 4-8 by red dots rather than lines. For this purpose, we have a pair of algorithms in the works that are to be run after the Bottom-Up algorithm that will look at all the singleton segments and perform a hypothetical merge with the two adjacent segments. If the resulting segment is valid, then the merge is performed, and this process is repeated. The goal of this is to remove those segments that are singletons only because they could not merge into either adjacent segment on their own.

We are also applying this methodology to seat counts over the same period to see how that conflicts or agrees with our popular-vote-based model. This would still be using percentages as the total number of seats in both the House and Senate changed during the period we are examining. Other than the change in the data set, there would not need to be any changes to the methodology.

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Gender Differences in Guilt and Shame Proneness from Moral Dilemmas

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Abstract

Decision-making is a common daily task that people experience and can sometimes lead to moral dilemmas. Moral dilemmas may lead to consequential emotions, both negative and positive, and previous research suggests that there may be a difference in those emotional responses between different genders. The purpose of the present study was to examine if there is a difference of gender regarding moral dilemma responses and whether female-identifying participants would score higher (i.e., more prone to guilt/shame) on the Guilt and Shame Proneness Scale (GASP) than male-identifying participants. There were 42 participants (30 female, 10 male, and 2 non-binary) who completed the Guilt and Shame Proneness Scale. The results of the data were examined across the four subscales of the Guilt and Shame Proneness Scale: Guilt-Negative-Behavior-Evaluation (NBE), Guilt-Repair, Shame-Negative-Self-Evaluation (NSE), and Shame-Withdrawal. The results demonstrated that there were no significant differences between genders overall across the four scales, however, there was a significant main effect between the different GASP subscales. This did not support the hypothesis that female-identifying individuals would score higher on the GASP scale, demonstrating more guilt and shame, than male-identifying individuals when presented with moral dilemmas scenarios.

Keywords: guilt, shame, gender, moral dilemmas

Gender Differences in Guilt and Shame Proneness from Moral Dilemmas

Researchers have long been interested in how people respond to moral dilemmas, but research on gender and the influence it may have on decision-making has been more prevalent over the past few decades (Wark & Krebs, 1996). In the United States, gender roles have been changing; for example, women are becoming more relevant in the workplace and making more decisions for companies (Glover et al., 2002). Therefore, new research that examines how gender may influence

¹ Hailey is a McNair Scholar.

moral decision making is important as it becomes more relevant in real world applications. Previous research by Cohen et al. (2011) explored the basis of guilt and shame specifically regarding moral decision-making. They found that participants who scored higher on the Guilt and Shame Proneness Scale made fewer unethical decisions than those who scored lower on the scale. In other words, people who are more prone to feelings of guilt are more likely to make ethical moral decisions. This current study's purpose was to explore differences between scores on the Guilt and Shame Proneness Scale and moral decision-making based on gender.

Literature Review

Interest in moral dilemmas is known to date back centuries, to Plato's time, as he questioned moral rules that may apply to moral decision-making and how to determine which rules take priority (McConnell, 2018); however, psychological research on moral dilemmas was popularized in the 20th century by researchers such as Lawrence Kohlberg and Carol Gilligan. Kohlberg and Gilligan both studied the moral decision-making process, however Kohlberg was criticized by Gilligan for focusing his stages of moral development on legal-based decision-making, while Gilligan emphasized that some individuals may prefer to focus on emotions and relationship-based decision-making (Gilligan, 1982, pp. 25-29). Kohlberg's stages of moral development consist of a preconventional view (consequences determine right and wrong), a conventional view (focused on law and order), and a postconventional view (justice, reciprocity, and human rights) (Kohlberg & Hersh, 1977). Gilligan argued, however, that Kohlberg's view was predominantly male-focused, and lacked a female perspective (Gilligan, 1982, p. 18). Due to the biased nature of Kohlberg's samples (i.e., predominantly male), Gilligan's research focused on the female perspective, finding that female moral decision-making often focused on emotion, care, and relationships (Gilligan, 1982, p. 73). As time has progressed, gender has become a factor worth considering for moral dilemma decisions, as there are many assumptions about gender roles and expectations.

One important area where real-world moral decisions may be influenced by gender is in the field of business. Evidence suggests that as women have taken more leading roles in companies, the ethical stances of companies have changed as a result. Glover et al. (2002) studied how gender influences ethical decision-making in the workplace. They found that along with work experience, women tended to reason more ethically than men based on their specific values (achievement, concern for others, honesty/integrity, and fairness) and decisions on different moral dilemma scenarios (Glover et al., 2002). Despite these findings, there is other research suggesting gender does not have a strong influence on moral decision-making. Wark and Krebs (1996) researched gender differences on various topics by presenting moral dilemmas on personal, justice, and care-oriented subjects. They found that females typically scored significantly higher than males in personal and care-oriented dilemmas. The observed overall difference was very small within all three of the different topics of moral dilemmas, which poses the question of whether gender has a large enough influence on how people make their decisions.

Emotional processes, and how different genders experience emotions, may also interact in important ways with moral decision-making. Horne and Powell

(2016) found that participants self-reported an increase in emotions after they were confronted with a personal dilemma (physically close and direct personal actions, e.g., pushing, stabbing, and hitting) versus an impersonal dilemma (indirect actions, e.g., pulling a lever and using gas). It is important to consider the type of moral dilemma and the individual's involvement as that may lead to an increase in an emotional response and how that emotional response may interact with their responses.

Decision-making for moral dilemmas may create conflicting thoughts and emotions for people. Individuals making these decisions may experience uncomfortable and/or negative thoughts and emotions, which in turn could interfere with the final decisions people make (Szekely & Miu, 2015, as cited in Szekely et al., 2015). For example, one study found that individuals who are emotionally attached to their religious beliefs, Christian beliefs specifically, had more emotions present in their decision-making (Szekely et al., 2015). Another study takes the approach of examining what roles emotion versus logic had on the final decision-making process. (Gawronski et al., 2018). This study by Gawronski et al. (2018) found that manipulating the participant's emotions throughout the study may influence their moral dilemma judgments with regards to moral norms. The previous research stated above then sets the foundation for looking specifically at different types of emotion and thought related to morals—that of guilt and shame.

With consideration to the findings of previous literature, the hypothesis of the current study is that female-identifying individuals will score higher on the Guilt-Proneness Scale than male-identifying individuals when presented with moral dilemmas (for the purposes of this paper, individuals identifying as male or female will be called 'male' or 'female,' accordingly). The current study focused on identifying whether females demonstrated more guilt and shame proneness than males. To measure guilt and shame proneness, participants were given sixteen moral dilemma scenarios and were asked to indicate the likelihood that they would react in the way described.

Methods

Participants

Participants consisted of 42 individuals, 30 of whom identified as female, 10 as male, and 2 as non-binary. Data from the two non-binary individuals were excluded from the analysis due to low representation. All participants were at least 18 years old and were chosen by convenience sampling. The average age of the participants was 27.6 years ($SD = 11.8$).

Measures

A Qualtrics survey was provided to the participants by the researcher. The beginning of the survey contained the Implied Consent information. Following consent was The Guilt and Shame Proneness Scale (GASP) which contained sixteen moral dilemma scenarios measured with a range from Very Unlikely to Very Likely (Very Unlikely, Unlikely, Slightly Unlikely, About 50% Likely, Likely, and Very

Likely). A couple of the scenarios were "After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?" and "You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?". The GASP scale is designed to measure individual differences in guilt and shame proneness in four categories: guilt-negative-behavior-evaluation (NBE) (having negative feelings towards one's actions), guilt-repair (behavioral intentions to correct or compensate for one's actions), shame-negative-self-evaluation (NSE) (negative feelings towards oneself), and shame-withdraw (intention to avoid specific situations). The GASP scale was scored by summing or averaging the four items in each subscale (Cohen et al., 2011) Higher scores on the GASP Scale signified more proneness to guilt and shame while lower scores signified low proneness to guilt and shame. Finally, Fill-in-the-blank demographic questions such as age and gender identity were also included, followed by the debriefing information.

Procedure

To begin the study, participants clicked on a link to give them access to the Qualtrics survey. The link was accessed via Emails that were sent requesting participation or from a post made on the researcher's personal Facebook page. Participants were then presented with an informed consent form, which they needed to click 'Next' in order to agree before they could access the study. Participants completed the survey which consisted of two sections, The Guilt and Shame Proneness Scale and demographics. After the surveys were completed, participants were debriefed about the purpose of the study and were also provided contact information for the University of Wisconsin-Stout Counseling Center in the event they had experienced significant negative emotions as a result of the study.

Results

It was hypothesized that females would score higher on the GASP scale, demonstrating more feelings of guilt, than males when presented with moral dilemmas (note that non-binary individuals did not have a high enough representation to be included in the results). A 2 (Gender) x 4 (GASP Sub-scales) mixed-model ANOVA was conducted using mean scores on the GASP Scale inventory. A significant main effect for GASP Sub-scales was obtained, $F(3,114) = 53.40$, $p < .001$, with a strong effect ($\eta^2 = .58$). No other main effects or interactions were significant ($p > .05$).

Post-hoc tests were carried out to explore the main effect for the GASP subscales, using a Bonferroni correction for multiple comparisons. Participant responses on the Shame-Withdrawal scale were significantly higher ($M = 4.76$, $SD = 1.07$) compared to the NBE scale ($M = 2.59$, $SD = 1.26$; $p < .001$), Guilt-Repair scale ($M = 2.47$, $SD = 1.05$; $p < .001$), and NSE ($M = 2.13$, $SD = .95$; $p < .001$). No other post-hoc comparisons were significant ($p > .05$). Therefore, the current hypothesis was not supported by the mixed-model ANOVA conducted.

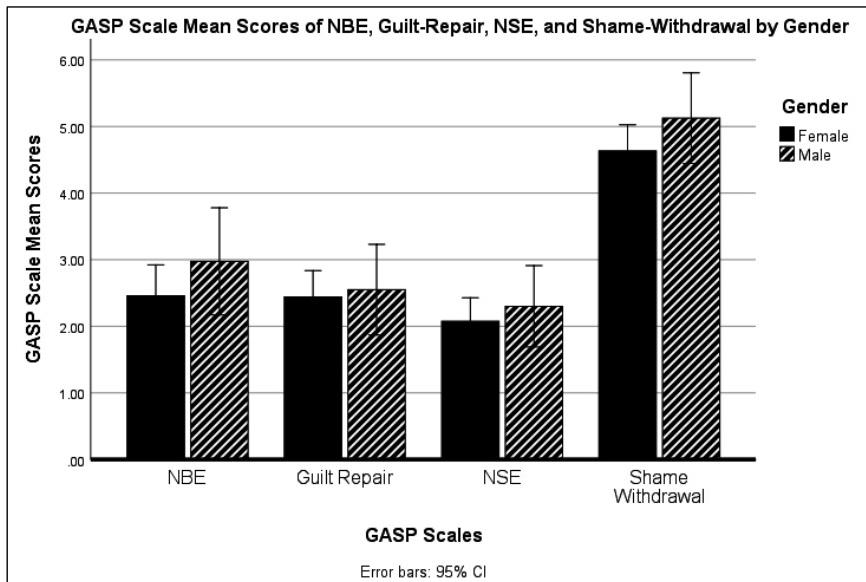


Figure 1: GASP Scale Means by Gender.

Note: Mean scores of NBE, Guilt-Repair, NSE, and Shame-Withdrawal by gender.

Discussion

The results of the data collected from the four subscales of the Guilt and Shame Proneness Scale (NBE, Guilt-Repair, NSE, and Shame-Withdrawal) demonstrated that there were no statistically significant differences amongst the two genders represented. This finding did not support the hypothesis that females would score higher on the GASP scale than male individuals when presented with moral dilemmas. This may be due to the generic nature of the GASP Scale and how previous research has demonstrated that generally different genders do not differ significantly unless the moral dilemma falls under specific topics (e.g., justice, care, relationships, and honesty) (Gilligan, 1982; Glover et al., 2002; Wark & Krebs 1996).

Although there were no significant differences observed between genders for the scales used in this study, there was a significant difference amongst the four sub-scales of the GASP Scale. Shame-Withdrawal had significantly higher scores from both females and males in comparison to the other sub-scales. This would suggest that the participants have a higher tendency to withdraw or avoid situations that may increase the feeling of shame than they are to experience the other aspects of the GASP Scale.

Despite the lack of significant difference between females and males, there are still opportunities to explore more within the discussion gender differences and their impact on moral dilemmas. Only two genders were represented in the current data as there was a low representation of non-binary individuals. Exploring different types of genders besides female and male could add to the discussion of moral dilemma decision-making. Negative emotions were examined in the current study, more positive emotions could be examined in the future. Along with studying different

types of emotions, examining emotions throughout the process (before, during, and after) could be beneficial.

There are a few limitations of this study to consider. One of the limitations was the small sample sizes because it can be difficult to represent a larger population when the sample size only consists of 42 individuals. Having even representation of each gender within this small sample size would have been more ideal. Another limitation was the uneven representation of the different genders. There were three times more females represented in the data than males, and these unbalanced samples likely affected the overall results. An additional limitation was that the current study did not research the possible shift in the participant's emotions throughout the study as it was not designed to measure changes in emotion across the study. Emotions may influence how participants respond to moral dilemmas (Szekely & Miu, 2015; as cited in Szekely et al., 2015) and it is important to understand the effect emotions may have had on the results of this study. One solution to this issue would have been to measure the emotional effect before and after reading the moral dilemmas, to determine if participants' emotional states were significantly affected by the stories they encountered.

Due to the limitations of this current study's participant pool and experimental design, there are possible recommendations for future research. One recommendation for possible research is to study the initial emotions of the participants to see how they may change throughout the study. It could be beneficial to also look into different types of emotion such as positive emotions whereas guilt and shame are more negative in nature. Another recommendation is to have a more even representation between the different genders as it provides data that is easier to compare and generalize. This current study had significantly more female participants than male or nonbinary participants and future studies should be aware of the participant pool and should make sure to have equal representation of each gender. Making modifications such as these has the potential to better represent the population.

Conclusion

The main goal of the current study was to identify if females would score higher on the GASP scale, feeling more guilt and shame, when presented with moral dilemmas. By conducting a 2 (Gender) x 4 (GASP Sub-scales) mixed-model ANOVA on the GASP scale (Cohen et al., 2011), it was concluded that there was no significant difference in guilt and shame proneness between the different genders. This conclusion did not support the hypothesis that females would score higher on the GASP scale than males when presented with moral dilemmas. Despite these findings, researching gender differences regarding moral dilemmas may still be beneficial as gender roles continue to develop and change (Glover et al., 2002).

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Appendix

Instructions: In this questionnaire you will read about situations that people are likely to encounter in day-to-day life, followed by common reactions to those situations. As you read each scenario, try to imagine yourself in that situation. Then indicate the likelihood that you would react in the way described.

1 Very Unlikely	2 Unlikely	3 Slightly Unlikely	4 About 50% Likely	5 Slightly Likely	6 Likely	7 Very Likely
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- _____ 1. After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?
- _____ 2. You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?
- _____ 3. You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you feel like a bad person?
- _____ 4. After making a big mistake on an important project at work in which people were depending on you, your boss criticizes you in front of your coworkers. What is the likelihood that you would feign sickness and leave work?
- _____ 5. You reveal a friend's secret, though your friend never finds out. What is the likelihood that your failure to keep the secret would lead you to exert extra effort to keep secrets in the future?
- _____ 6. You give a bad presentation at work. Afterwards your boss tells your coworkers it was your fault that your company lost the contract. What is the likelihood that you would feel incompetent?
- _____ 7. A friend tells you that you boast a great deal. What is the likelihood that you would stop spending time with that friend?
- _____ 8. Your home is very messy and unexpected guests knock on your door and invite themselves in. What is the likelihood that you would avoid the guests until they leave?
- _____ 9. You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?
- _____ 10. You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being?
- _____ 11. You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak?
- _____ 12. You take office supplies home for personal use and are caught by your boss. What is the likelihood that this would lead you to quit your job?
- _____ 13. You make a mistake at work and find out a coworker is blamed for the error. Later, your coworker confronts you about your mistake. What is the likelihood that you would feel like a coward?
- _____ 14. At a coworker's housewarming party, you spill red wine on their new cream-colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel that the way you acted was pathetic?
- _____ 15. While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends?
- _____ 16. You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?

Power of Vulnerability in Politics: Political Division as Control

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Abstract

This pilot research was aimed at evaluating political divisiveness that occurs in the United States. The purpose of this study was to look at why political divisiveness continues to grow in the country, as well as what can be done to help explain and diminish it. The literature review addressed previous research that was done on political divisiveness and how politics affects interpersonal relationships. The research was conducted using two focus groups, followed by two interviews. The focus groups and the interviews were transcribed and analyzed to find five different themes: respect, productive conversation, fear of shame or discomfort, being vulnerable, and learning. The theories of cultural hegemony, vulnerability, and shame were used to explain what is occurring with this exploratory research. The conclusion thus far is when people are vulnerable or are more open to being vulnerable, they can have productive political conversations. What was also found was that people in power control the status quo, using political ideology and division to maintain dominance.

Keywords: politics, vulnerability, divisiveness

Introduction

Political divisiveness has become more normalized in the United States within the last five years. Being able to think back to a time when politics were not as aggressive and divided as it is now is extremely hard for most. This exploratory research would be helpful to anyone from a politician to an average person who enjoys talking about politics. It is important to address the issue of polarization because politics have become unhealthy and has led the government to not accomplish things it is supposed to (Abramowitz, 2010). Politics is the system that governs and controls a country or an area (Dictionary.com). If political divisiveness can be diminished, this will help government officials put their political identity aside to get legislation passed and other goals accomplished.

Conclusions were drawn from previous research, two theories, two focus groups, and two interviews. The previous research on political divisiveness and the effect it has had recently has revealed likeminded people are more apt to find each other and build friendships than people who have different political views. Two focus groups were conducted which consisted of nine UW-Stout students from a variety of ethnicities and fields of study. The focus groups forced the students to confront

their opinions about the Colin Kaepernick controversy¹ and their political ideologies with their peers, they did not know this was going to occur which forced them to be vulnerable. After the focus groups were conducted, two of the participants were interviewed to gain more in-depth information.



Image 1: Colin Kaepernick kneeling which sparked controversy and division (bbc.com, 2016).

The purpose of this study was to look at why political divisiveness continues to grow in the United States, as well as what can be done to help explain and diminish it. Two theories were used in this study to better explain [the problem -Ed.]: vulnerability and shame from Brene Brown, and the theory of cultural hegemony from Antonio Gramsci. The theory of vulnerability and shame was used to help explain how people can have better conversations with each other about politically heated or controversial topics. Shame is important due to a fear of being shamed and ostracized because one has different political views. Cultural hegemony was used to explain how people in power can manipulate the culture of a society, including politics.

Literature Review

The literature review helped determine four main themes; political polarization, political divisiveness, stronger ties with people who are politically congruent, and the need for more exposure to different political opinions. When people choose their friends based on their political views, this is going to change the type of information and opinions they hear. This pilot research tries to figure out if the choice in opinions one hears has an impact on political polarization. With the help of social media, people can more easily pick who they have relationships with (Klofstad, McDermott, and Hatermi, 2013). Evaluating how people choose their interpersonal networks and looking at divisive politics can give insight into other parts of the world.

Political divisiveness is seen in many aspects of people's lives and is shown when talking about a variety of controversial topics. Gould (2016) evaluates gun violence and how the topic and many others do not have to be divisive, but the current political climate makes various topics controversial. This is one example of how conversations about different stances on topics can lead to politics making a

¹ In 2016, 49ers quarterback Colin Kaepernick started to kneel during the national anthem due to his views on the treatment of racial minorities.

division within the country. Political divisiveness can cause individuals to fear talking about their opinions on various issues. Additionally, people will avoid conversations about politics because different views tend to divide people into different groups (Morey, Eveland, & Hutchens, 2012). Jahoda (1954) shows how political divisiveness leads people to negatively judge others based on their political views, if they differ. When people block and unfriend others due to political views, it contributes to political division (Miller, Bobkowski, Maliniak, & Rapoport, 2015). This is because when someone chooses to do so, this changes the posts and news they are exposed to. When an individual removes someone from their life because of their political beliefs, they are choosing to only see posts and news that align with their beliefs, this reinforces their mindset even further.

The next theme is, due to social media and the divide that is occurring, political polarization is also becoming more prevalent. Klofstad, et al. (2013) argue American politics are becoming more polarized. They also state if people keep choosing what political opinions they hear, political polarization will continue to worsen (Klofstad et al., 2013). Political polarization increases the amount of conflict people have, divides the government, which makes it harder to get things accomplished, and creates competition between people (Brown, et al., 2011). The last argument made is that people on the extreme ends of the political spectrum feel the need to establish clear boundaries on who they associate with (Ivanov, et al, 2018). These people can detect political friends or foes and are more aggressive towards their political foes (Ivanov et al., 2018). Political polarization creates stronger ties with people who share the same political views. Some benefits of political polarization include stronger personal ties, political stances being more important than before, and higher political engagement (Cholbi, 2019).

Multiple authors stated that people tend to have stronger connections with others who are politically congruent to them (Klofstad et al., 2013; Morey et al., 2012; Lazer et al., 2008; Brown et al., 2011). Lazer (2008) explains this may be because people who are similar tend to have a higher chance to meet each other. The same author also points out people need to be understood by people who are like them. When people choose to have conversations with others who have the same views as they do, this creates social networks of like-minded people (Mutz & Martin, 2001). This phenomenon is explained by the theory of homophily, which means like people tend to form ties (Lazer et al., 2008). People also tend to form stronger ties with alike people because similarity is important in order to build relationships (Brown, et al., 2011). People also tend to choose Facebook friends who reflect them, this only exposes them to select information (Kim et al., 2016). This occurrence could also explain why political divisiveness and polarization occurs, because both parties aggregate towards people who have the same views as they do (Klofstad et al., 2013).

There are positives to when people form stronger bonds with like-minded people. Being surrounded by other like-minded individuals yields stronger ties and it is less likely they will avoid controversial topics. This is because people who have the same opinions want to talk about those topics since there will be little to no disagreement and discomfort. Political disagreement can force people to sever ties with others (Klofstad et al., 2013). When people feel like they can control who they

engage with, this lowers the potential for discomfort (Miller et al., 2015). Klofstad also explains how politics influences the romantic partners people choose. When people choose mates based on similarity, which includes political views, this also tends to strengthen their romantic relationship (Klofstad et al., 2013).

The last theme is that there is a need for exposure to different political views. Mutz and Martin (2001) state it is the media's role to increase the exposure to various views as this is good for democracy. People also need to express different views for democracy to work (Mutz & Martin, 2001). It is extremely important to be exposed to different political perspectives to promote the education of other viewpoints, which increases people's political tolerance (Mutz & Martin, 2001). Miller et al. (2015) found people using social media who are closer to the middle of the political spectrum try to navigate between a diverse range of political opinions and tend to not unfriend people who do not share the exact same views as them. These people are also more apt to engage with others about political topics. When people keep the same networks of others around them, they hear the same political views, opinions, and are unable to expand their knowledge. This is dangerous because it leads people to follow scripts, which can also be explained by Erving Goffman's theory on Dramaturgy (Miller et al., 2015).

What has not been addressed by previous research is if UW-Stout students and college students in general behave differently after hearing the political views of their peers after they build a friendship. The impact vulnerability has on people's ability to share their political beliefs with others has not been addressed either.

Methods

The qualitative study took place at the University of Wisconsin-Stout, and consisted of two focus groups, they lasted about an hour each. Harvey Hall on Stout's campus was where the nine undergraduate students participated in the focus groups (five in one and four in the other). The students were chosen due to their political beliefs from the people I knew. These individuals were strangers from a variety of different majors and ranged in age from 18-26. The focus groups were semi-structured, but the participants had control of how the focus groups were going



Image 2: Heineken commercial that illustrated having a productive conversation about each other's differences (Osvaldo, 2018).

to go as they were given limited instructions on purpose. The inspiration for the focus groups came from a Heineken commercial titled "Worlds Apart".

The moderator was introduced, participants were given instructions and name tags that identified them by letters to help maintain confidentiality. After, the participants were given a consent form to read and sign in order to participate in the study, they were given an oath of confidentiality to determine among them if they wanted this to stay between them. The oath of confidentiality was a form I created to help the participants feel comfortable enough to share their views, which created a safe space. The participants were given the form and they all agreed to sign it and not let subjects talk about leave the room. The focus group began with them building a puzzle and talking about any subject they chose. They had to write down five adjectives that best described themselves and find commonalities between all of them. After, the responses to the survey filled out prior to the focus group were read aloud. The participants were not aware this was going to occur, as it was a deception study. The deception study was needed in order to get raw data from the participants by forcing them to be vulnerable. After the participants discussed their feelings about what occurred in the focus group with each other, they were all given a debrief form which was read aloud and explained.

To dig deeper, there were two interviews conducted with two of the participants from the focus groups. These participants were chosen for an interview because they showed interest in talking about the focus groups further which they indicated on the debrief form. The open-ended questions asked were along the lines of vulnerability, political beliefs, and shame/discomfort. To ensure confidentiality these individuals were identified with the same letter from the focus group. The interviews lasted around 40 minutes each, the focus group and interviews were recorded and transcribed. Each transcription was coded in a Microsoft Word table to find dominant themes. After further research was conducted, there were two main theories used to help explain what was occurring.

Theory

The two theories used while conducting the research and identifying the results were Antonio Gramsci's theory on cultural hegemony and Brene Brown's theory of vulnerability and shame. These two theories helped to conceptualize and explain the results of the research.

Antonio Gramsci developed a social theory on cultural hegemony, which also included resistance to dominant governments. This theory was used to evaluate the connection between culture, power, and politics under a capitalistic society (Lears, 1985). While Gramsci never explicitly defined cultural hegemony in his work, Lears (1985) suggests it is the control over a diverse society by the groups who have the power to manipulate the norms, rules, and culture of that society and turn it into the status quo. In a pluralistic society it is important for people to question and resist hegemonic norms due to the people in power relying on citizens' legitimacy perceptions (Forgacs, 1988). Everyone cannot fit into the two well defined political parties, especially with how polarized they have become. It is key for people to not allow the new status quo of political polarization and division to continue; Gramsci would argue for a counter-hegemonic struggle to put forward new ideas (Forgacs,

1988). This leaves the question of how to get people organized in an effective counter-hegemonic struggle. While Gramsci would recommend a mobilization of counter-hegemonic ideas in a trench-warfare style activist agenda, this relies on combativeness. Instead, this study focuses on what can happen when people are vulnerable and have productive political conversations without the pressure from the narratives driven by those in power in political parties.

Accordingly, the second theory used is Brene Brown's theory on vulnerability and shame. She says that, for a connection to be made with other people, they need to be vulnerable and allow themselves to be really seen (Brown, 2010). This is comparable to when people are able to make connections with each other based on a political level. Even if individuals do not have the same political views, there are things they agree on. If people cannot be vulnerable and show who they really are, including their political views, they cannot accurately talk about issues. Brown (2010) also talks about politics being an arena where there is no discourse and no conversation anymore.

If people can be vulnerable and put their shame aside, this can help them have constructive conversations about politics. Brown (2010) talks about how people cannot have political conversations without race, which is a very touchy subject. These conversations about race cannot be done without shame (Brown, 2012). When people talk about controversial topics they get paralyzed by shame, and this is why these conversations are not productive. If people can learn to set aside their shame and embrace being vulnerable, then politics can possibly be discussed in a more constructive and productive manner.

Results

After coding the focus groups and the interviews, five main themes were identified. The dominant themes were respect, productive conversation, fear of shame or discomfort, being vulnerable, and learning. Respect is a positive feeling for someone because of their accomplishments or reputation (Dictionary.com). I defined productive conversation with the help of dictionary.com as the ability to talk about a subject without force or arguments. The fear of shame or discomfort is described as being scared to have others make you feel humiliated, or distressed caused by the consciousness of wrong behavior (Dictionary.com). Vulnerability is being open and exposed to possible harm (Dictionary.com). Learning is defined by dictionary.com as gaining or acquiring more knowledge by experience or being taught. These themes helped answer the question, "Why can people have or not have productive political conversations?"

In the focus group six of the participants used the term respect because it was important to each person when talking about their political views. It did not matter who they would have political conversations with, it just mattered if the other person respected their views. Participant N said, "If they aren't respecting my views, then we will have a problem." The ability for both sides to empathize and respect the other person's political views is important for this individual to be able to have a good conversation. Another participant said, "It's all about respecting other people's viewpoints. Just because they are different from yours, doesn't mean they are wrong." Everyone has their own opinions, and if both sides can respect each other's then this

group of Stout students agreed they can have conversations with others no matter their political ideology. When asked if political beliefs would be a determining factor in a friendship participant G said:

"I don't think political beliefs would be a determining factor, unless you're downright disrespectful about mine. That's different than just having different views than one another."

This statement and similar ones showed people can still have friendships with others who have different political views. Three participants said they would not be able to be super close to those individuals though. The participants showed the only way they could not be friends with someone who had different views, would be if the other does not respect them. Having respect for someone and their views was the only way to make a friendship work.

Having a productive conversation was an underlying theme in the focus groups and showed why political divisiveness is so prevalent. Participant Z said it was important to "have a dialogue, not a debate." In the current political climate, it is seen too often that different parties want to talk over each other and win some sort of debate. Participant Y talked about this further when they said, "Learning not winning, that's big." Conversations between people who have different views are supposed to be learning experiences for both sides, and too often they turn into fights about who is right or wrong. Going into a conversation with someone whose views differ from yours should be a learning experience. This idea is shown by participant G when they said:

"We don't know how to talk to each other... We get into wars with people with the intent of trying to dismantle the opinions and thoughts of other people."

This is where vulnerability comes into play, because people cannot have productive conversations with others if they are too concerned with being right. If each side puts their walls down, this is when people can have a productive conversation about touchy subjects without the need to 'win'.

The fear of shame or discomfort was another underlying theme found during the focus groups. After revealing each of their responses to the survey and their political views one participant said:

"Sometimes I find myself having conservative views and I'm like did I just have that thought? Does that make me a horrible person? Are all my Democrat friends going to disown me?"

This quote shows this individual has a fear of being shamed by other friends who are also Democrats. If they share that some of their political views are more fluid, they might be shamed by their friends who have more solid liberal views. Individuals find themselves not being able to fit in one category because some of their views are fluid, the current political climate makes this very hard. This is because when people say they are a Republican or a Democrat, the other automatically goes to the extreme sides of the political spectrum. The divisive politics have made it extremely difficult for people to have more flexible views about political topics.

The ability to be vulnerable was the main theme and purpose of the focus groups. When the moderator revealed their responses to the survey they took, and their political views, this was forcing the participants to be vulnerable. During the

debrief of the focus group, Participant Z said, "I think it is healthy to have friends who don't have the same opinions as you... they challenge you and you both bring up points that the other wouldn't find on your own." When individuals are vulnerable, they are more apt to have friends or listen to others who have different views than they do. This is also where people tend to learn more because they are more open to learning about things they already do not know.

During an interview after the focus group, Participant M went even further with this idea of vulnerability:

"We weren't... growing up taught to be put in sticky situations or places where we met people that are different from us. That's why we stick with people who are similar to us and share similar backgrounds and views."

This quote showed that when this individual was growing up, they were not taught to be vulnerable, which is why they have friends who are like them. They discuss this even further, "I hang out with my friends who are like me because if I hang out with people who aren't like me, I am going to be uncomfortable." This idea of hanging out with people who are like you is very common. As shown in the literature review, people who are alike prefer to hang out with each other. When people are vulnerable this is where personal growth occurs, in the uncomfortable. This is hard for people because this was not something that was taught or explained to them growing up.

Learning showed to be another theme that linked with vulnerability. Participant G said in one of the interviews, "I learned more when I put my walls down... Even though I hated it at first, I was glad when it was over, and I thought about it." This shows when people are vulnerable, it is not ideal at first, but they end up learning more from the experience by doing so. After the individual's political views and opinions about a controversial topic were shared one of the participants said, "You brought up good points, I never looked at it that way." If no one is ever exposed to other viewpoints or opinions, they do not have opportunities to learn about the other side. When the focus groups forced them to learn the other sides, they were able to learn about ideas they were never exposed to.

Conclusion

This research shows that vulnerability and respect have an effect on political divisiveness and the ability to have constructive conversations. The findings relate to the literature that explains the idea of political divisiveness and interpersonal relations with people who are like you. The research builds on that and tells a story of what happens when people expand their circles and how vulnerability plays a role in that process. The norm in society has become to argue and try to dismantle other people and their opinions when they differ. When people have interpersonal relationships and can be vulnerable with others who have different political views, this questions the current status quo of the harsh political division. It is extremely important for people to question the current status quo and create a functional pluralistic democracy, as the current system benefits certain people in power. While Gramsci would call this a 'counter-hegemony', in order to do this successfully, people have to be vulnerable and set aside shame (Forgacs, 1988). This study thus evaluated a counter-hegemonic vision built around not combativeness but vulnerability.

When people are vulnerable or are more open to being vulnerable, they tend to listen to others and have a productive dialogue. These people can also be more susceptible to compromise to learn about the other side and their reasoning. The people who put themselves in vulnerable positions more often tend to be okay with being uncomfortable. This means they usually will have more friends with different political views, because like people tend to hang out because it is comfortable and normal for them. When people do not mind being uncomfortable, they do not mind hanging out with people who have different values.

The purpose of the focus groups was to force people to be vulnerable. When the participants were vulnerable, they opened up and had a constructive conversation with each other. The ability for them to put their walls down allowed each participant to put their views aside and listen to others. Without vulnerability the participants would have never heard some of the different viewpoints, this leads to political divisiveness because without hearing the other sides to an argument, your views are continued to be reinforced and unchallenged. The participants said if the moderator would have revealed their political views and survey answers first, this would have automatically built their walls up. This aspect would have led them to be passive aggressive towards each other and they would have been unable to have productive conversations due to the different views. The research also shows when everyone is vulnerable, the fear of shame is overcome and set aside. It is important because it helped connect the research on political divisiveness and the research on vulnerability and shame.

This exploratory research addresses the theory of cultural hegemony in a few different ways. With the use of Gramsci's theory, we can understand why people should resist the current power structure that helped get the country to the point of an extremely toxic political environment. This resistance does not need to be at a large scale. Small counter-hegemonic acts can make a huge difference and could start a much-needed conversation to slowly dismantle the odd state of cultural hegemony in U.S. politics today. The focus groups that were conducted helped illustrate that politics does not have to be a central part of our lives, and it does not decide whether or not people will be civil and have interpersonal relationships with others. With the help of vulnerability and shame, the masses can take back the status quo by having productive political conversations with diverse people.

This research is a start to help address political division which has become more prevalent in the United States. Even though this research was done with Stout students, these students represent the US population which consists of conservatives, liberals, moderates, whites, blacks, and mixed heritage peoples. It is also a critique of this project because it was a small sample size of the population. Because of the constraints of a semester, this research will continue to be explored and conducted. The idea of vulnerability can help two individuals from opposite political parties have a productive conversation. This research can also help make people realize they are a lot more understanding than they think. People agree on more than they disagree on, they just need to let themselves address the aspects they agree on before they talk about the things they disagree on. The ability to be vulnerable and have a healthy conversation is the key to move forward in the current political climate to make change happen.

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Cacophony

Gabs Conway

Senior, Fine Art, Studio Art; Concentration in Ceramics

Faculty Mentor: Geoffrey Wheeler

Artist Statement

My body of work asks questions about the disjointed relationships we have between our mentality and physical form. I explore how life is perceived through existing in a human form; to be self-aware. I no longer recognize my body as a human being. I am only an essence of human intelligence bound to a physical form. These detachments start from our subconscious; a separate entity than our outward appearance. I consider, in death, how our physicality is left behind, and it is no longer us present. This contradiction of containment and detachment has led me to consider my form to be a fleshy mound of organs. The human form has become a tube, a vessel for essence, a continuator of survival.



Sviiivvd

2020

Ceramic, latex, pine, paint, gel medium, screws.
22" x 16" x 17"



Squirruumph

2020

Ceramic, nylon tight.

6" x 24" x 10"



eeeeraAAH

2020

Ceramic, latex, pine, screws, tufted yarn rug.
28" x 53" x 29"



Scufffuph

2020

Ceramic, latex, tufted yarn rugs.
20" x 49" x 11"

Diachronic Abstraction

Steve Alexis

Senior, B.F.A. Studio Art: Metals & Contemporary Art Jewelry

Faculty Mentor: Masako Onodera

Artist Statement

I create objects to convey emotion, to emphasize the process of making, and to portray a sense of the instinctual nature of my work. I seek to convey a form of visceral expression through the mediums of metals, ceramics, plastics, polymers, and gemstones. These objects serve as the actualization and physical embodiments of sentiment, by which the maker and viewer may become aware and respond to them. I am driven to act by materials; their exploration is the conduit to my work process.



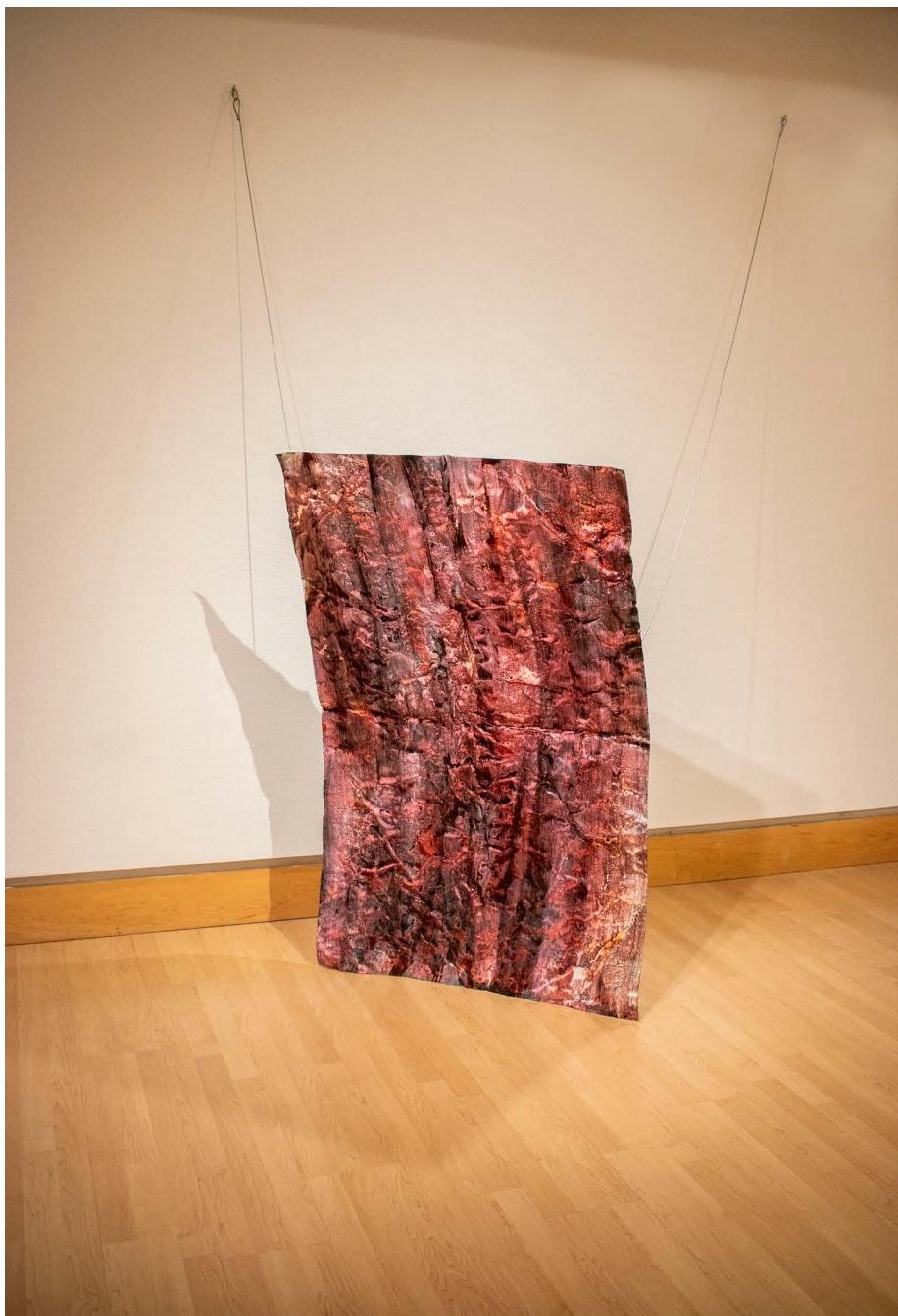
Surface 13
2020
Steel flashing, steel cable, powder coat, pop-rivets.
Dimensions variable.



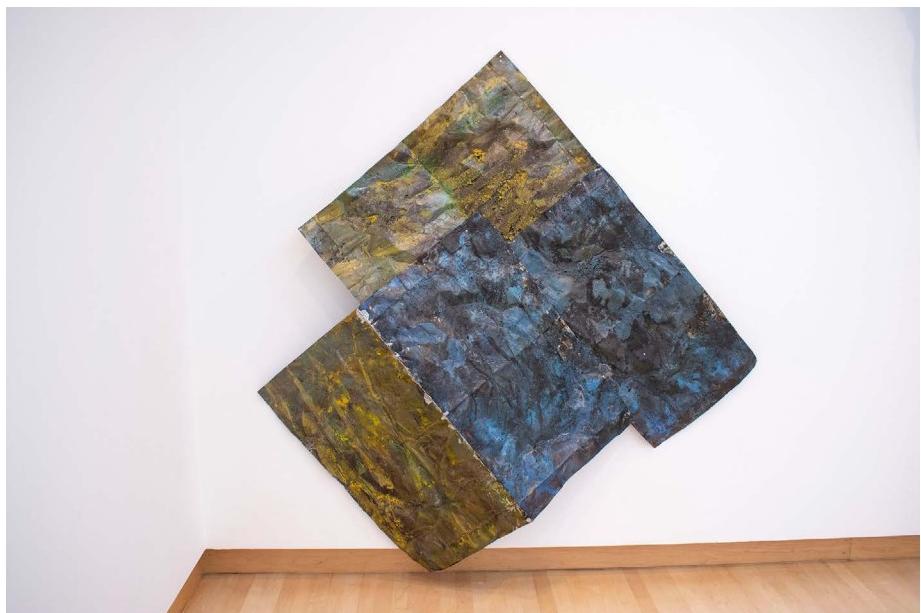
Surface 3

2020

Steel flashing, steel cable, powder coat, pop-rivets.
Dimensions variable.



Surface 37
2020
Steel flashing, steel cable, powder coat, pop-rivets.
Dimensions variable.



Surface VIII

2020

Steel flashing, steel cable, powder coat, pop-rivets.
Dimensions variable.

Entangled Restraint

Jamie Huang

Senior, Studio Art

Faculty Mentor: Tamara Brantmeier

Artist Statement

As Simone de Beauvoir has written, women face their day-to-day lives as "the other" gender. In my work, I aim to create a lens to view the lives of "the other" social roles into which I have been placed. "One is not born, but rather becomes, a woman," according to Beauvoir. Her observations and conclusions ring true today, and based on my experience as a minority culturally, racially, and sexually, I have been deeply wounded in my experience of becoming a woman. My current work is documentary in nature, re-presenting the stages of my coping process. Through this work, I aim to transform negativity into self-identification of my diversity.

The content of my work is based on the cultural and racial comments, and sexual and gender expectations I have received from the people around me. The process of art-making mirrors a surgical process of cutting open the wound, getting to the roots, extracting the messiness, and finally, a settling with myself, others, and the experience. It is a process of self-healing. Though the process of making is raw, and at times, distasteful, it is an empowering process and a way of healing myself and forgiving others. After seeing and experiencing much unpleasantness in humanity, translating the experience into paintings fosters growth, confidence, and hope that I hold for this society.

Semiotics is continually explored in my paintings through characters, motifs, and mark-making in my paintings. In the works, They Said and Submerging Thoughts, there is repetition in the Mandarin character, 女, which means the female form of "you." To me, the character, 女, holds a lot of weight because I mainly receive it in sentences that are filled with the social constructs of how others expect me to be. Through the shifting of temperature and value in colors, the texts appear subtle in the paintings. Such visual language reflects how verbal abuse can be just as subtle and invisible but brutal at the same time. The repetition of the text on a different scale is a reflection of my mental state after the experience.

In Still Me or You?, the motif of my feelings of containment from others' comments and the established social construct is expressed through composition, mark making and color choices. Though I view myself as having a variety of potentials, the feeling of being contained and spied on resonates true as a member of society. The composition of the three heads signals the Trinity, which also represents the everchanging qualities of the humanity. Through the expressive and destructive mark making covering parts of the head, the figures are contained within the composition. The saturation of color covered by the tinted neutrals represents my act of trying to fit and adjust to fit into the norms.

"Feminist artists blur the distinctions between art and criticism, between art and politics, and between theory and practice," according to Hilde Hein. Though my

works are associated with social inequalities and discriminations, I am not interested in presenting them as criticism or political statements, for me, they are aftereffects of how certain actions and words can lead to mental struggle and self-disapproval. The messiness needs to be put on a pedestal through my art. By sharing these experiences that do not get talked about enough, people can be made aware of the harm of an unintentional action or comment. By refusing to distinguish my standpoint and simply show vulnerability, I hope to invite everyone of different races, gender, sexuality, religion, and political beliefs into my wounded world.



They Said
2020
Oil on canvas.
24" x 18"

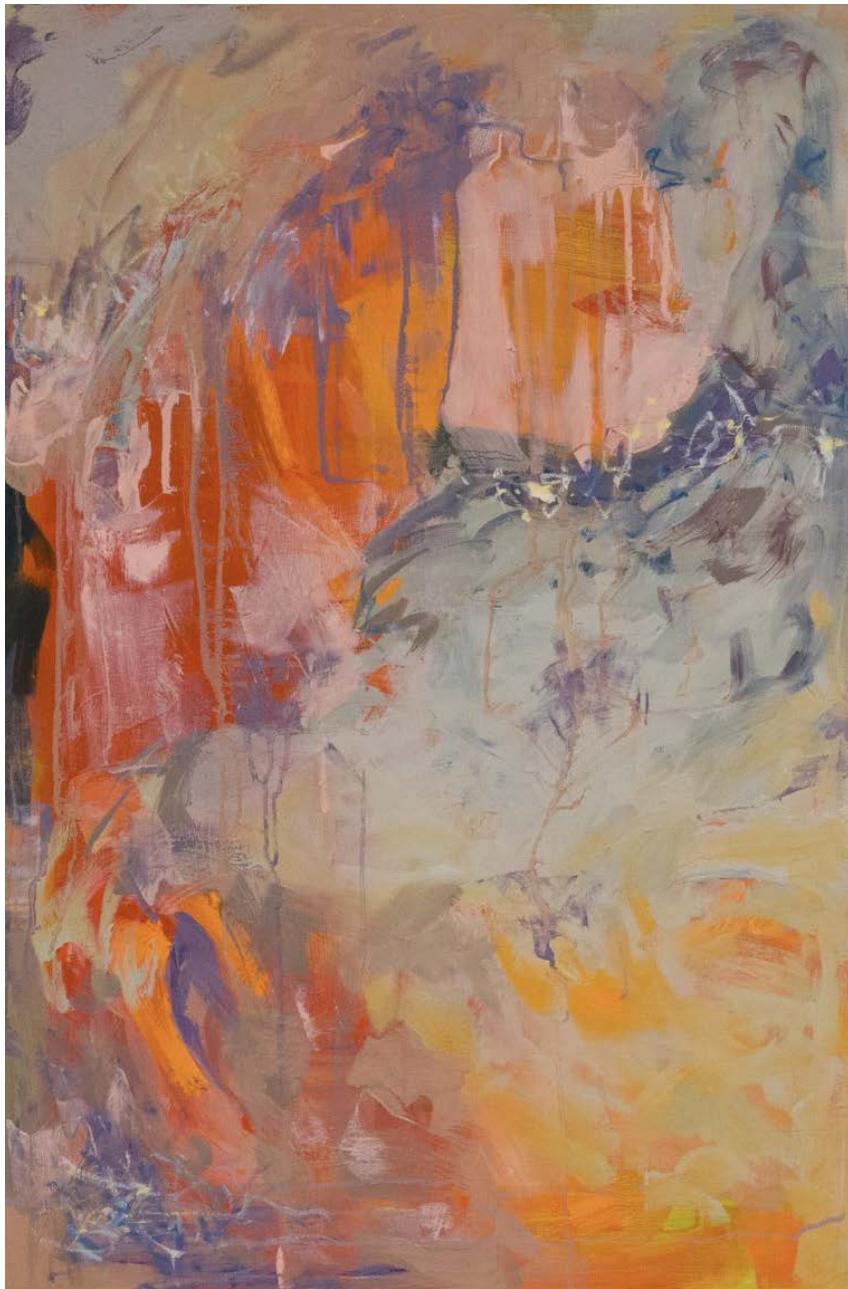


Submerging Thoughts

2020

Oil on panel.

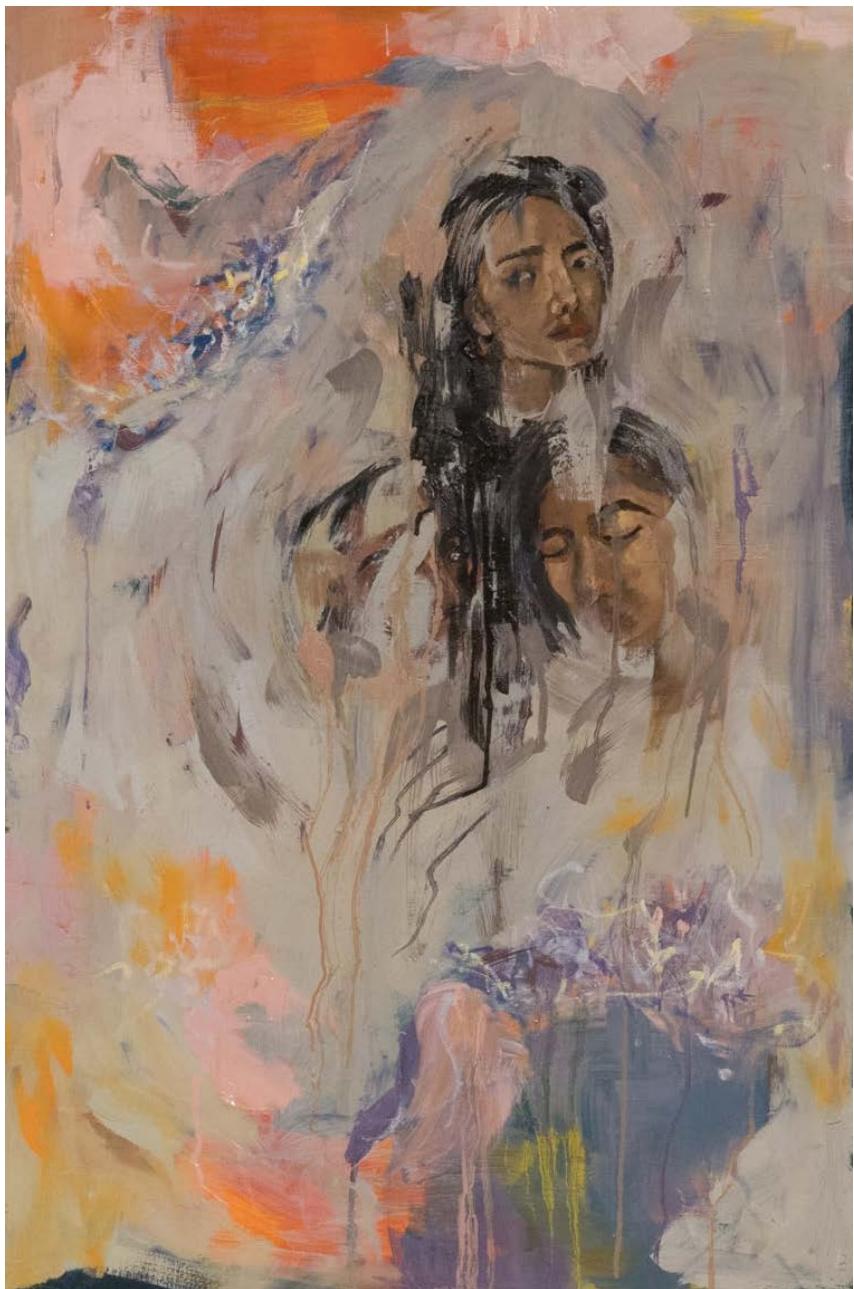
36" x 48"

**3.1 *Still Me or You?***

2020

Oil on panel.

36" x 48" diptych (left part).



3.2 *Still Me or You?*

2020

Oil on panel.

36" x 48" diptych (right part).

Excess

Ali Strangstalien

Senior, Studio Art: Metals and Contemporary Art Jewelry

Faculty Mentor: Vincent Pontillo-Verrastro

Artist Statement

I aim to expose the contradictory nature of the high value that our consumerist culture places upon the use of cheap goods, as well as the harmful habits and outcomes associated with it. In my work, I explore the crisis of plastic pollution and how it relates to the wasteful habits that today's throwaway society has perpetuated. By incorporating single-use plastics into jewelry alongside precious metals and gemstones, cheaply made throwaway goods are transformed into precious and wearable status symbols.

Excessive waste of single-use plastics is a result of an increasingly fast-paced world in which consumerism is everywhere we look; and with consumerism comes plastic waste. Many plastics such as grocery bags, soda bottles, and various types of packaging are used for a short amount of time, sometimes only minutes, before we dispose of them. Once disposed of, they take hundreds of years to break down. During this long process, these objects find their way into bodies of water and soils, leaching away chemicals and toxins into their surroundings.

In my work, I use single-use plastics as a symbol of modern-day consumerism. When paired with precious metals and gemstones, a relationship is created between the contrasting materials which relates to the perceived value of single-use products. Although we don't directly perceive single-use goods to be "valuable" per se, there is value in what is convenient and cheap, and what makes our lives easier in an immediate way.

While my work focuses primarily on single-use plastics, it also references other wasteful practices such as planned obsolescence, and the irresponsible use of non-renewable resources. People in today's consumerist culture tend to gravitate towards the most expensive products with an excess of unnecessary features; for example, a refrigerator with a built-in computer, or yet another device to communicate with the rest of their household devices. These products have become a sort of status symbol for those who own them. The desire to express one's status through these objects is mirrored in my work through the use of precious metals and gemstones.

Art-making can be an extremely wasteful practice, and my aim is to minimize this waste as much as possible. I do this by using ethically sourced or recycled metals and gemstones, as well as giving single-use plastics another life. In creating this body of work, I do not claim to have all the answers, nor do I claim to be free of fault. Rather, this work allows me to identify the issues to myself and to viewers, as well as work through my own wasteful habits.

My work is a representation of the value that our throwaway society places upon convenience. I create these pieces to serve as a tangible reminder of our responsibilities for our planet, and to encourage mindfulness about our own wasteful tendencies.



Pomp

2019

Sterling silver, plastic grocery bag, cubic zirconia.
4" x 3" x 2"



Untitled

2019

Sterling silver, cubic zirconia.

2" x 1" x 1"



Spent

2019

Sterling silver, plastic grocery bag, cubic zirconia.
5" x 3" x 1"



Secret

2019

Sterling silver, cubic zirconia.

1" x 3" x 1"

Feel it all around

Jared leClaire

Senior, Studio Art Sculpture

Faculty Mentor: Kelly O'Brien

Artist Statement

The invisible river that is culture flows unaware of itself. It has borders, but no form. Social currents are ever-changing and continually moving downstream. Everything that participates in culture is subjected to the pull of the current. One may float with no effort and never know of the river itself. When one is standing and not moving with the current, it breaks away from previous passivity. One no longer takes part in the movement of the river and the flow of culture. Undoubtedly, submitting to the flow of the river makes culture feel truer. However, when one stands against the current, there is heavy resistance. From that, clarity of previously practiced culture becomes blurred. As the river moves, the shoreline remains static. One may match the movement or stillness of their surroundings. The visual stillness in contrast to the ever-moving pull of culture is what I create in my work.

I create yarn-based installations that envelop the gallery. The yarn is suspended to create parabolas. These strands are fixed in space by gravity. The pull of gravity highlights the stillness of the yarn as it submits to the phenomenon outside of itself. The tension between the invisible force and the visual resistance is the essence of the work. Cultural pressures have the potential to be felt by the viewer and reflected on. The joining of visual weight and physical stillness creates the awareness of one's own place in the continual current.

The installations produce a sense of detriment while maintaining an elegance. In this experience, I hope the viewer sees oneself in a grander context of one's surroundings. For the viewer to stand up in the river and see outside oneself in culture. May one see the river and feel its pull. When still, everything outside of culture becomes clear. This is when the otherness is experienced, the shoreline is seen clearly. These short moments are the sublime. From this, an individual experience of clarity can be achieved. That experience of standing against the current is necessary to better understand the importance of individuality in a communal context. It is a call to find ourselves in the chaos of the river. The quick realizations from these moments are unique to all who experience them.

Through my work, these ideas can be manifested. The cultural river continually moves and is ever-present. Installations mimic these feelings through form so discovery and navigation of oneself are possible. The visibility of the work is a way to access the invisible and understand the world through a sharable lens. The presentation of resistance allows one to reflect on the way of being and have a deeper understanding of clarity hidden around us. The world is always clear. It is us floating in the river.



Weight of it all
2019
Cotton yarn.
Dimensions variable.



Everlong
2019
Cotton yarn.
Dimensions variable.



Above Us
2019
Cotton yarn.
5' x 6'



Sinking Indifference

2019

Cotton yarn.

Dimensions variable.

Holme Next to Sea

Gemma Weston

Senior, Studio Art with a concentration in Contemporary sculpture

Faculty Mentor: Charles Matson Lume

Artist Statement:

In my work, I use pathos as a means to connect with my audience. I create mixed media objects and images that embody visual characteristics of fragmentation, emotional numbness, and a paradoxical beauty in both tension and fragility. Via their transient nature, they speak about cycles in our individual and collective lives and how we naturally process them. I predominantly collect found artifacts and use raw, utilitarian materials to recontextualize their existence and relate them to the varying states of the body – anatomical and psychological. I am also inspired by the theatics of landscape and its ability to reveal to us the overlooked gap in our humanity via its forgotten history.



Maiden Voyage

2020

Plaster, mirrored glass, high density insulation foam, copper pipes, fibers & particles.
60" x 32" x 6"



Pragmatics

2020

20-year-old deck screws, quality pine, Early American stain, rust.
36" x 36" x 12"

***High Tide***

2020

Victoria's Secret mesh teddy, epoxy resin, poplar, salvaged drawer slide.
6" x 16" x 12"



High Tide (detail)

2020

Victoria's Secret mesh teddy, epoxy resin, poplar, salvaged drawer slide.
6" x 16" x 12"

The Undressed

Emily Gordon

Senior, Studio Art and Ceramics

Faculty Mentor: Charles Matson Lume

Artist Statement

I have found it necessary to find comfort amidst the cultural mess I have inherited and contributed to. As a reaction to this, I compulsively generate pieces that may be displayed in innumerable ways that speak to large-scale societal and environmental ills. The work I make functions in a place of in-betweenness. I generate individual objects that are painted on, installed, performed, sculpted with clay, and combined. Repetitive action and collection of parts within my work help clarify personal beliefs and observed surroundings through visual vocabulary.

My color palettes are soft, stereotypically feminine, and inviting. Oftentimes, that softness is pushed against by inserting geometry or a harsh color. Repetitively, I utilize the color pink for its duality and depth. I do not associate pink with the feminine, rather, a representation of internal humanness. It is the unseen intuition, sexuality, power, and weakness. With every shade, there is an inherent vulnerability and simultaneous strength that is universal.

There is an expansive scope in which I am visually processing the human condition and environmental decline. This is seen through the philosophical lens of the Rhizome Theory from Gilles Deleuze and Felix Guattari. The rhizome effect models culture as a system. rhizome is originally a botanical term regarding roots, but Deleuze and Guattari utilized the term to help create a visual for their theory on social progressions and human interactions. This emphasizes the interconnectedness of all things. The makeup of the rhizome relies on the nonsensical in the construction of its context. Commonalities are not always linked to one another; rather, an otherness is intermingling with one another to create a structure. The compilation of linear elements undergoes a process of metamorphosis in order to reach a state of deterritorialization¹. The rhizome effect is a lens that allows me to generate a logic of my own for my work to function

Curation of the initial nonsensical parts to create cohesion occurs intuitively. Handling each piece as a vehicle to a larger installation or performance, rather than an ending point, allows me to push together similar forms that I have made disparate. Compression of parts speaks to my anxiety towards mass violence, environmental decay and overpopulation. Yet, embellishments on canvas or accumulations of performed actions exude a vibrancy. The duality of existing during a declining time of humanity leaves me with an existential dilemma. I fluctuate between being exhaustingly overwhelmed and having bull-headed determination. My work is not immune to my changing moods, rather, it reacts with them.

Reflection on the placement of the Self within current social climates helps establish my authentic perspective. Constant confrontation and poking fun at ignorance within myself and others is an improvisational dance that fuels my practice. It never rests.

¹ Deleuze and Guattari characterize deterritorialization as a term to signify a constant process of transformations. It also describes a cyclical shift in the link between our everyday cultural experiences and the configuration of global politics.



The Undressed

2019

Exhibition installation shot.



If You Find Them, They Shift and Vanish Too!

2019

Installation shot.

Performer, canvas, scissors, canvas string.



Go Up Into the Gaps

2019

Installation shot.

Performer, wood platform, unfired clay, canvas.



Slowly, Softer, Softly, Sometime: Iteration 2

2019

Canvas, oil paint, acrylic, spray paint, clay,
grommets, metal rings, wood, wood platform.

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